### STIC-Biotech/Ch mLib

From: Sent:

To: Subject: Schnizer, Holly

Monday, June 18, 2001 11:02 AM

STIC-Bictech/ChemLib

seq. search request for appl. no. 09/444,281

Please search the interference and commercial databases for the following sequences:

SEQ ID NO: 35 SEQ ID NO:36 and

a peptide with the following sequence: (SEQ ID NO:35)(SEQ ID NO:27)(SEQ ID NO:35)= peptide of 37 amino acids (A peptide with the following sequence: (SEQ ID NO:36)(SEQ ID NO:27)(SEQ ID NO:35)= peptide of 35 amino acids (B

Thank you.

Holly Schnizer AU 1653 CM1-10B05 305-3722

Query B (Seg. 105 36 + 27 + 35) wast cre Query B (Seg. 105"

15 a peptide = 36 residues.

So, another query was created wherein Seg. 10" 36 t 27 t 36 check some or was searched. This query scriptor seguing.

Bevery

Run on:

OM protein - protein search, using sw model

GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

June 21, 2001, 08:38:29 ; Search time 42.99 Seconds (without alignments) 52.177 Million cell updates/sec

#### Result No. Minimum DB seq length: 0 Maximum DB seq length: 2000000000 Database : Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Total number of hits satisfying chosen parameters: Scoring table: Sequence: Perfect score: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. 141.5 137.5 133.5 99.5 99 99 98 98.5 93.5 Query Match 58.7 57.1 55.4 55.4 41.3 41.1 41.1 40.7 40.7 38.8 SCHNIZ-444-MODSEQ1.PEP 241 1 ILKKWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 37 412676 seqs, 60623988 residues BLOSUM62 : /SIDSB/gcgdata/geneseq/geneseqp/AA1986.DAT: \* :/SIDSB/gcgdata/geneseq/geneseqp/AA1987.DAT: \* :/SIDSB/gcgdata/geneseq/geneseqp/AA1988.DAT: \* :/SIDSB/gcgdata/geneseq/geneseqp/AA1989.DAT: \* :/SIDSB/gcgdata/geneseq/geneseqp/AA199.DAT: \* A\_Geneseq\_0601:\* Gapop 10.0 , Gapext 0.5 /SIDS8/gcgdata/geneseq/geneseqp/AA1982.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1983.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1984.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1985.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1980.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1981.DAT:\* Length B H AAW12899 AAY24582 AAY91806 AAY24571 AAY91800 AAW66363 AAY44668 AAY57142 AAY91808 AAY24570 SUMMARIES Amino acid sequenc Indolicidin analog Poly-(Indol (1-13) Indolicidin fusion Antimicrobial cati Description Indolicidin analog Amino acid sequenc Indolicidin analog Amino acid sequenc Indolicidin analog acid sequenc

	AAW12889	18	13	.51	85	45
Antimicrobial cat	AAW27179	18	13	.5	85	44
Amino acid sequenc	AAY91828	21	12	5	85	43
Indolicidin analog	AAY24586	19	12	٠,	85	42
icrobia	AAW12882	18	16	35.5	85.5	41
Amino acid sequenc	AAY91813	21	14	5	86	40
icidin	AAY24573	19	14	5	86	39
acid	AAY91812	21	13	5	86	38
Amino acid sequenc	180	21	13	5	86	37
Indolicidin analog	AAY24572	19	13	5	86	36
Indolicidin analog	AAY24613	19	13	.5	86	35
Antimicrobial cati	AAW12896	18	13	35.7	86	34
Amino acid sequenc	183	21	12	35.7	86	$\omega$
Indolicidin analog	AAY24615	19	12	35.7	86	32
1crobi	AAW12877	18	12	5	86	2
Amino acid sequenc	AAY91804	21	12	36.1	87	30
	AAY24580	19	12		87	29
Amino acid sequenc	AAY91796	21	21	٥.	87.5	28
Cationic peptide	AAW66376	19	21		87.5	27
Indolicidin analog	AAY24552	19	21	٥.	87.5	26
icrobi	AAW13802	18	15		89	25
acid s	AAY91811	21	14	7.	. 91	24
icidin	AAY24583	19	14	37.8	91	23
acid	AAY91820	21	13	7.	91	22
acid	AAY91819	21	13	7	91	21
acid	AAY91818	21	13	7.	91	20
acid	AAY91774	21	13	7	91	19
Amino acid sequenc	177	21		7.	91	18
	279	21	13	.7	91	17
ው	449	21	13	.7	91	
	69	19		7.	91	
Cationic peptide	AAW66378	19	13	7.	91	14
~	60	19		37.8	91	
Antimicrobial cat	AAW12873	18	13	7.	91	12

# ALIGNMENTS

RESULT AAY91800 AAY91800 standard; Peptide; Amino acid sequence of cationic peptide MBI 11B20CN 06-JUN-2000 (first entry) 28 À

Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; multidrug resistance. Synthetic

WO9965506-A2

23-DEC-1999.

14-JUN-1999; 99WO-CA00552

12-JUN-1998; 98US-0096541.

(MICR-) MICROLOGIX BIOTECH INC.

Friedland HD, Krieger TJ, Taylor R, Erfle D, Fraser JR, West MHP;

WPI; 2000-223549/19.

Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours

Claim 1; Page

15;

94pp;

English. Ø

sequence

represents

cationic

peptide amino acid sequence,

which

'n

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RESULT
AAM663
ID AAM66
AXX 10
AA AAM6
AXX 10
AXX 25
AXX 10
AXX 25
AXX 10
AXX 25
AXX 10
AXX 25
AXX 10
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
26-SEP-1997;
                        The present sequence represents an indolicidin analogue. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic
                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bacterial bacteria;
                                                                                                                                                                                                                                                                                    New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
  peptides
                                                                                                                                                                                                                                         Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Fraser JR, McNicol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-SEP-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indolicidin analogue;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indolicidin analogue MBI 11B20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                    Page 91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          infection;
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     provide synergistic activity
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97US-0040649.
97US-0915314.
97US-0060099.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          resistance; cationic peptide; antibiotic; tolerance; antibacterial; microorganism;
                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                               West MHP
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     against a microorganism that
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ired resistance
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                   Synthetic. Bos sp.
                                                                                                                                                                                                                                                                                                                                                                                                                         Crosslinked indolicidin analog; X-indolicidin; poly-Indol 1-13; stability; bovine neutrophil; antimicrobial; antibacterial; fungicide protozoacide; virucide; anti-HTY; human immunodeficiency virus-1; pram positive; Staphylococcus aureus; Escherichia coli; Salmonella typhimurium; yeast; fungi; protozoa; Candida ablicans; Cryptococcus neoformans; Giardia; Acanthamoeba;
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21; Conservative
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       Osapay K;
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61.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fungicide;
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                                                                                                                                                                                                                                                                                                                                                              Indolicidin analogue; antimicrobial activity; helminth; bacteria; treatment; inhibit growth; micro-organism; contact lens solution; transgenic plant; surgical instrument; yeast; fungi; protozoa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Candida albicans, Cryptococcus neoformans), protozoa (e.g. Giardia species and Acanthamoeba species), and viruses (e.g. HIV-1). They can be used for reducing or inhibiting the growth or survival of microorganisms in an environment e.g. a food or food product, a solution, an inanimate object comprising a surface, or a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The patent discloses crosslinked analogs of indolicidin (Indol 1-13) which is a naturally occurring peptide isolated from bovine neutrophils and has antimicrobial activity. The crosslinked indolicidin (X-indolicidin) analogs are stable and have antimicrobial activity against gram positive and negative bacteria (e.g. Staphylococcus aureus, Escherichia coli and Salmonella typhimurium), yeasts and fungi (e.g. Candida albicans, Cryptococcus neoformans), protozoa (e.g. Giardia
Disclosure; Fig 6; 62pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY57142 standard; Protein; 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is a protein comprising three copies of Indol 1-13 each separated by a hexapeptide spacer sequence A recombinant construct encoding this sequence was used for the expression of Indol-homoserine (Hse) analog. The ability of
                                protozoa and virus, used for, e.g.
                                                 New indolicidin analogues,
                                                                                    WPI; 2000-053028/04.
N-PSDB; AAZ45123.
                                                                                                                                                                                                     12-MAY-1998;
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                                                                                                                                                                                                                                                                                                      W09958141-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                Indolicidin fusion peptide amino acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                     (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-FEB-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indol-Hse analog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1C; Fig 1; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Crosslinked indolicidin analogs with antimicrobial activity against bacteria, yeast, fungi, protozoa and viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-147133/13.
N-PSDB; AAZ49764.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11 kwpwwpwrrm--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 KWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
22; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X-indolicidin analog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                  98US-0076227
                                                                                                                                                                                                                                   99WO-US09942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     to maintain antimicrobial activity provides a means to cldin analog precursors in sufficient quantities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -ariamilpwkwpwwpwrr 38
                                              active against bacteria, yeast, fungi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 133.5; DB 21
Pred. No. 4.1e-10;
0; Mismatches 5;
                              treating infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
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AC XXX DT XXX DX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW12899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CC provided that if Xaal is present, Xaa8 = Hse, Met or Met-Xaa9-Met;
CC and further provided that: if Xaa2 is absent, Xaa1 is absent, If Xaa3 is
CC absent, Xaa1 and Xaa2 are absent; if Xaa4 is absent, Xaa1, Xaa2 and Xaa3
CC are absent; and if Xaa5 is absent, Xaa1, Xaa2, Xaa3 and Xaa4 are absent.
CC The indolicidin analogues can be used to create a fusion polypeptide
CC consisting of the analogue linked to a peptide. The indolicidin
CC analogues have antimicrobial activity against gram positive bacteria,
CC gram negative bacteria, yeast, fungus, protozoa and viruses (e.g. HIV-1).
CC They are also active against helminths. The analogues can be used for
CC used for treating infections. They can also be included in a liquid such
CC as water or an aqueous solution, e.g. contact lens solution. The
CC analogues have potential uses in food products, and in objects such as
CC the surface of an instrument used to prepare food or to perform surgery.
CC Transgenic plants or animals useful in the food industry can be produced
CC by introducing a nucleic acid molecule encoding an indolicidin analogue
into the acamina calls of each organisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                        Bacterial; viral; antitumour; food; prebacterium; yeast; endotoxaemia; sepsis; antiviral; Candida albicans; sterilant;
                                                              23-AUG-1995;
                                                                                                                                                                                     06-MAR-1997
                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                     Shigella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antimicrobial dationic peptide CP-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xaa1 = Ile, Leu, Val,
Xaa2 = Ile, Leu, Val,
Xaa3 = Pro or absent;
(UYBR-) UNIV BRITISH COLUMBIA
                                                                                                                       23-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW12899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW12899 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This is the amino acid sequence of an example of a fusion protein which consists of an indolicidin analogue linked to another peptide. Peptides AAY57109-Y57138 and AAY57143-Y57144 are new indolicidin analogues, which have a homoserine residue and/or a truncated amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xaa4 = Trp, Phe or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Where:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      terminal region. The analogues have the following amino acid sequence:
Xaal-Xaa2-Xaa3-Xaa4-Xaa5-Xaa6-Pro-Xaa6-Xaa6-Pro-Xaa6-Xaa7-Xaa7-Xaa8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 KWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      = Trp or Phe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity 64.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              homoserine (Hse), Met, Met-Xaa9-Met or absent,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  at least one amino acid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               germline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lys or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leu, Val,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                              95US-0002687
                                                                                                                          96WO-IB00996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Val,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -ariamilpwkwpwwpwrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ala,
Ala,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0f
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Gly or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 133.5; DB 21
Pred. No. 4.1e-10;
0; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     preservative;
                                                                                                                                                                                                                                                                                                                                                                                              antibiotic; fungal;
Salmonella; Yersina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    growth;
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                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY24582
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -0-8; u = 0-1; XI = 11e, Leu, Val, Phe, Tyr, Trp or Met; X2 = Trp or Phe; X3 = Arg or Lys; X4 = Trp or Lys; and X5 = Phe, Trp, Arg, Lys or Pro. The peptides are preferably amidated or carboxymethylated. The peptides may be used in methods for inhibiting the growth of a bacterium or yeast, or for inhibiting an endotoxaemia or sepsis associated disorder in a subject. The peptides have a broad activity against antiblotic resistant bacteria, combined with activity against the medically important fungus Candida albicans. In addition, the peptides are useful as antitumour agents and/or antiviral agents. The peptides are useful as antitumour agents and/or antiviral agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         may be used as sterilants or preservatives of materials susceptible to microbial or viral contamination, e.g. in processed foods to inhibit Salmonella, Yersina and Shigella. The peptides are compact and tend to have a unique polyproline type II extended helix structure that permits them to span the membrane with relatively few amino acids. The peptides possess the ability to work synergistically with antibiotics, and in addition, some of then possess anti-endotoxin activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cationic peptide which has antimicrobial activity. The amino acid sequence of antimicrobial cationic peptides (including the present sequence) is selected from: XIXIPTOXZXXZPTO(XZXZPTO)XZXZXXXX(X5)o; XIXIPTOXZXXX4(X5)rPTOXZXXXX; XIXIX3(PTOTTP)UX3XZXXXXXXXXXX(X5)o; XIXIX3XXXZPTO(XZXZPTO)NX2(X5)m; where m = 1-5; n = 1-2; o = 2-5; r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cationic peptide(s) having anti-microbial activity - used for the inhibition of bacterial and viral growth, as an antitumour agent,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3; Page 66; 89pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and as a food preservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-179179/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Falla TJ,
                                                                                                                                                                                                                           Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative; food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            x1x1x3x3x2Pro(x2x2Pro)nx2(x5)m; where m =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents a specifically claimed
                                                                                                                                                                                                                                                                                                                                                                                                                            AAY24582 standard;
                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                      18-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                         AAY24582;
                                 13-JAN-1997;
21-AUG-1996;
                                                                                      21-AUG-1997;
                                                                                                                       26-FEB-1998
                                                                                                                                                        W09807745-A2
                                                                                                                                                                                                                                                                                                                   Indolicidin
(MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ILKKWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                               σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gough M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16
                                                                                                                                                                                                                                                                                                                     analogue #34.
                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₹
                                 97US-0034949.
96US-0024754.
                                                                                  97WO-US14779
                                                                                                                                                                                                                                                                                                                                                                                                                            peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hancock REW
                                                                                                                                                                                                                                                                                                                                                                                                                            21 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 99.5;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     wpwwpwrrk 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .7e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          novel isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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Sequence

21 AA;

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infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klabsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                    (V), LBBNX3nXXRXXRXK (VI), LKNXZXXZXRRK (VII) and BBXZXXZXBBB (VIII) Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 13;
                                                   reduces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BBBXZXXZXB
                                                   their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 89; 129pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (III),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Krieger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BXZXXZXBBBn(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Taylor R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              West
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BXZXXZXB
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Query Match
Best Local Similarity
                                             Matches
\vdash
                     1 ILKKWPWWPWRRKHEAEPEAEPIMILKK 28
                                              18;
                                             41.18; ilarity 64.38; Conservative
-milkk 18
                                            Score 99; DB 19;
Pred. No. 2.6e-06;
0; Mismatches 0
                                               0
                                                                     Length 21;
                                               Indels
                                               10; Gaps
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AAY91806;
                                      AAY91806 standard; Peptide; 21 AA
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Amino acid sequence of cationic peptide MBI 11D4CN

06-JUN-2000

(first entry)

Cationic peptide; tumour; pharmaceutical composition; leukaemia; polyoxyalkylene-modified; APO; lymphoma; mu breast; lung; ovary; cervix; uterus; skin; prostate; l Synthetic multidrug 12-JUN-1998; 23-DEC-1999. WO9965506-A2 14-JUN-1999; resistance 98US-0096541. 99WO-CA00552 lymphoma; multiple myeloma; prostate; liver; colon; cancer;

(MICR-) MICROLOGIX BIOTECH INC

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 15; 94pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Friedland
                                                                                                                                                                                                                                                                                                Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectan additive; shampoo; soap; insecticide; herbicide; preservative food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                                              AAY24571;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY24571 standard;
                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                               Indolicidin analogue #23.
                                                                                                                                                                                                                                                                                                                                                                                       18-AUG-1999
                                                                                                                                                                                                                                                   WO9807745-A2
                                                                                                              Erfle
                                                                                                                                                              13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                                  21-AUG-1997;
                                                                                                                                                                                                                          26-FEB-1998
                                                                                       WPI; 1998-169090/15
                                                                                                                                     (MICR-) MICROLOGIX BIOTECH INC
                                                           New indolicidin analogues with antimicrobial activity and related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
hes 18; Conserv
  Claim 12;
                        toxicity,
                                                  nucleic
                                      conjugates with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ILKKWPWWPWRRKHEAEPEAEPIMILKK 28
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                                                  acid
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                                                                                                              Fraser JR,
Page
                           useful therapeutically,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                       (first entry)

    vectors,

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                                                                                                                                                              97US-0034949.
96US-0024754.
                                                                                                                                                                                                  97WO-US14779
  89; 129pp;
                                  polyoxyalkylene glycol and
                                                                                                                                                                                                                                                                                                                                                                                                                                        peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----milkk 18
                                                                                                               Krieger TJ,
                                    transformed cells and antibodies, alkylene glycol and fatty acid to i
   English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 99; DB Pred. No. 2.6e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Taylor R,
                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ą
                           as disinfectants
                                                                                                               Taylor R,
                                                                                                                                                                                                                                                                                                                  herbicide; preservative;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 21;
2.6e-06;
                                                                                                                                                                                                                                                                                                                                surface disinfectant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                  West MH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 21;
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                                          reduce
                                                       also
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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Y24549 to AAY24615 represent indolicidin analogues

of formulae

This sequence represents a cationic peptide amino acid sequence, can be used in the pharmaceutical composition of the invention.

which

Page 15; 94pp; English.

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RESULT
AAY91808
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania. Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (VII) AND BBXZXXZXRXK (VI), LKNXZXXZXRRK (VII) AND BBXZXXZXBBB (VIII) Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                       Cationic peptide; tumour; pharmaceutical composition; cancer; treatment leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; multidrug resistance.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXBB (AA)nMILBBAGS (IV), BXZXXZXBB(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nMILBBAGS (IV), BXZXXZXBB(AA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY91808;
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                                                                                                                                                                                                                                                                                             23-DEC-1999
                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Amino acid sequence of cationic peptide MBI 11D6CN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY91808 standard; Peptide;
                                                                                                                                                                                                                                                                  14-JUN-1999;
                                                                                                                                                                                                                                                                                                                             WO9965506-A2
                                                                                         Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides.
                                                                                                                                                                      Friedland
                                                                                                                                                                                                                                   12-JUN-1998;
                                                                                                                                                                                                   (MICR-) MICROLOGIX BIOTECH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ILKKWPWWPWRRKHEAEPEAEPIMILKK 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                   98US-0096541.
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                                                                                                                                                                                                        INC.
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                                                                                                                                                                         Taylor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 98; I
Pred. No. 3
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3.5e-06;
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                                                                                              useful for
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                                                                                                 treating
                                                                                                                                                                             JR,
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                                                                                                                                                                              West MHP
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                                                                                                   tumours
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invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary,

cervix, uterus, skin, prostate, liver and colon.

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Best Local
                    AAY2459 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZBB (I), BXZXXZXBB (II), BXZXXZXBB (II), BXZXXZXBBBN (AA)nMILBBASS (IV), BXZXXZXBB (VII), BXZXXZXBBB (VIII), BXZXXZXBBB (VIII), BBXZXXZXBB (VIII), BBXZXXZXBB (VIII), BBXZXXZXBB (VIII), BBXZXXZXBB (VIII), BBXZXXZXBB (VIII), AT Least 1 2 - V; In (VIII) at least 2 x - F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klabsiella pneumoniae, Bordetella pertussis, Stabhylococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectan additive; shampoo; soap; insecticide; herbicide; preservative food; technical material.
                                                                                                                                                                                                                    New indolicidin analogues with antimicrobial activity and nucleic acid - vectors, transformed cells and antibodies, conjugates with polyoxyalkylene glycol and fatty acid to toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                             Claim 12;
                                                                                                                                                                                                                                                                                     WPI; 1998-169090/15
                                                                                                                                                                                                                                                                                                            Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9807745-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY24570 standard;
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                                                                                                                                                                                                                                                                                                                                                                           13-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                     21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indolicidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-AUG-1999
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                                                                                                                                                                                                                                                                                                                                       MICROLOGIX BIOTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
             Listeria, Clostridium,
                                                                                                                                                                                           Page 89; 129pp;
                                                                                                                                                                                                                                                                                                             Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        analogue #22
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96US-0024754.
                                                                                                                                                                                                                                                                                                                                                                                                     97WO-US14779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40.7%;
                                                                                                                                                                                                                                                                                                             Krieger
                                                                                                                                                                                           English
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                                                                                                                                                                                                                                                                                                             ŢJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₿
 be used
              rotavirus and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                             Taylor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 21;
3.5e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disinfectant;
the compounds
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                                                                                                                                                                                                                                             and related
ies, also
                                                                                                                                                                                                                                    reduce
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Best Local Similarity

38.8%;

Score Pred.

93.5; No. 1

DB 21; .2e-05;

Length

20;

Query Match

Sequence

20

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Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds reduces their toxicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          leukaemia; polyoxyalkylene-modified; APO; breast; lung; ovary; cerviv
                    This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical
                                                                                                                                                                                            Novel pharmaceutical composition of polyoxyalkylene-modified cationic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY91807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                      WPI; 2000-223549/19
                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                   multidrug resistance.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Amino acid sequence of cationic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-JUN-2000 (first entry)
                                                                                                                                                         Disclosure;
                                                                                                                                                                                                                                                                Friedland HD,
                                                                                                                                                                                                                                                                                         (MICR-) MICROLOGIX BIOTECH
                                                                                                                                                                                                                                                                                                                     12-JUN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                         Page 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                Krieger
                                                                                                                                                                                                                                                                                                                     98US-0096541.
                                                                                                                                                                                                                                                                                                                                              99WO-CA00552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide;
                                                                                                                                                       94pp;
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                                                                                                                                                                                                                                                                ŢJ,
                                                                                                                                                         English.
                                                                                                                                                                                                                                                                Taylor
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Pred. No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    peptide MBI 11D5CN
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                                                                                                                                                                                               containing peptides,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APO;
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                                                                                                                                                                                                                                                                  Erfle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              composition;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                lymphoma; multiple myeloma;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer; treatment;
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                                                                                                                                                                                                                                                                   JR,
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                                                                                                                                                                                                                                                                   West MHP;
                                                                                                                                                                                                   tumours
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Query Match Best Local

DB 18; 1.6e-0

Length 13;

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                                     AAW12873
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bacterium;
antiviral;
                                                                                                                                                                                                                         The present sequence represents a specifically claimed novel isolated cationic peptide which has antimicrobial activity. The amino acid
                                                                                                                                                                                                                                                                             Cationic peptide(s) having anti-microbial activity - used for the inhibition of bacterial and viral growth, as an antitumour agent,
Sequence
                                                                                                                                                                                                                                                      Claim 2;
                                                                                                                                                                                                                                                                                                                              Falla
                                                                                                                                                                                                                                                                                                                                              (UYBR-) UNIV BRITISH COLUMBIA
                                                                                                                                                                                                                                                                                                                                                                23-AUG-1995;
                                                                                                                                                                                                                                                                                                                                                                                 23-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                   06-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                     WO9708199-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shigella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacterial; viral; antitumour; food; preservative; inhibitor; bacterium; yeast; endotoxaemia; sepsis; antibiotic; fungal; antiviral; Candida albicans; sterilant; Salmonella; yersina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antimicrobial cationic peptide CP-11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW12873 standard;
              .B. The present sequence represents SEQ ID NO:1 in the claims and xamples of the specification, but differs slightly from the SEQ II n the sequence listing on page 51 of the specification (see AAW27).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ILKKWPWWPWRRKHEAEPEAEPIMILKK 28
                                                                                                                                                                                                                                                                        as a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17;
                                                                                                                                                                                                                                                     Page
                                                                                                                                                                                                                                                                                                                           Gough M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                      65;
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                                                                                                                                                                                                                                                     89pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptide;
                                                                                                                                                                                                                                                                                                                             Hancock REW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  growth;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                        ID NO:1
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RESULT 1
AAY24609
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                                                                                                                                                   infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as
                                                             insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                ANY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VII) containing up to 25 amino acids (aa): RXZXXZBB (I), BRZXXZZBB (II), BRZXXZZBB (III), BRZXXZZBB (III), BRZXXZZBB (III), BRZXXZZBB (III), BRZXXZZBBB (AA)NM (V), LBBNZDXXZZNRK (VI), LKNZZXZZRRK (VII) and BRZXXZZBBB (VIII), Where Z = P or V: x = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa: n = 0 or 1: in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antimicrobial; antibiotic; antiarrythmic; surface disinfectant;
additive; shampoo; soap; insecticide; herbicide; preservative;
food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Page 32; 129pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-169090/15
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21-AUG-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9807745-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin analogue #61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY24609
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bacterial infection; photo-oxidised solubiliser;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry
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96US-0024754.
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Pred. No.
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RESULT 14
AAW66378
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Matches 13
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                                                                                                                                                          The present sequence represents a specifically claimed cationic peptide from the present invention. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has against a microorganism that is tolerant, inherently resistant, or has
                                                                                                                                                                                                                                                                                                            New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-FEB-1998;
10-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indolicidin analogue; resistance; cationic peptide; antibiotic;
bacterial infection; tolerance; antibacterial; microorganism;
bacteria; fungus; parasite; virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cationic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-JAN-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW66378 standard;
                                                                                                                                                                                                                                                                                      Claim 15; Page 93; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                        Fraser
                                                                                                                                                                                                                                                                                                                                                                                                                                        20-AUG-1997;
26-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-MAR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                             Sequence
                                                                                                                                   acquired resistance to an antibiotic agent. They can e.g. bacteria, fungi, parasites and viruses.
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                      ILKKWPWWPWRRK 13
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13; Conserv
                                                             Similarity
                                                                                                              13 AA;
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                                                 Conservative
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97US-0040649.
97US-0915314.
97US-0060099.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       claim 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37.8%;
                                                             37.8%;
                                                                                                                                                                                                                                                                                                                                                                                         West MHP;
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                                                             Score 91; pred. No.
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1.6e-05;
                                                 DB 19; I
1.6e-05;
hes 0;
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                                                                                                                                                                                                                                                                                                                            e.g. enhancing 
acquired resistance
                                                                        Length 13;
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Search completed: June Job time: 266 sec

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RESULT
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Matches
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                                                                                           provides controlled replication plasmid vectors (RAMP vectors) comprising a replication origin of a small cryptic plasmid and a gene encoding RepA. The vectors can reach very high levels of plasmid replication, but are not lethal to the host cell, and can be used to direct the high level expression of e.g. cytokines, antigens and thereachers rectains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cationic peptide
                                                                                                                                                                                                                                                                      Increasing plasmid copy number in a cell with the repA gene product - and an small cryptic plasmid ori sequence, useful for high level expression of e.g. cytokines, antigens or therapeutic proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MBI11; cationic peptide; plasmid pKL1; small cryptic plasmid; replication; RepA; vector; RAMP.
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                                                                                                                                                                MBIII is a small (mol.wt. 1879) cationic peptide. DNA encodir MBIII has been incorporated into vector PR2h-B1, in which the replication leader (R2l) sequence of RepA (see also AAW71686) joined to 2 Hpro peptides (see also AAW71692), to provide a vector for expression of MBIII in host cells. The invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                               Example 13; Page 54; 82pp; English.
                                                                                                                                                                                                                                                                                                                           WPI; 1998-531571/45.
                                                                                                                                                                                                                                                                                                                                                   Burian J,
                                                                                                                                                                                                                                                                                                                                                                          (BURI/) BURIAN J. (KAYW/) KAY W W.
                                                                                                                                                                                                                                                                                                                                                                                                                 14-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                            16-MAR-1998;
                                                            Sequence
                                                                                       antigens and therapeutic proteins.
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13; Conser
                                                                                                                                                                                                                                                                                                                                                   Kay WW;
                                                               IJ
 Conservative
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             37.8%;
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             Score 91;
Pred. No.
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  Mismatches
  DB 19; I
. 1.6e-05;
ches 0;
                           Length 13;
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq
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Perfect score:
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                                                                                                                                                                                                                                                                                                                               Score
  93
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length: 2000000000
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   Issued_Patents_AA:*
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                             ent No.
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TTORNEY/AGENT INFORMATION:
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Washington
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FERTION: COMPOSITIONS AND
VENTION: INFECTIONS USING
                                                                                                                          Fraser, Janet R.
West, Michael H.P.
                                                                                            Krieger, Timothy J. Taylor, Robert
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SEED and BERRY LLP
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7 NO: 54:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                          APPLICATION NUMBER: US/01
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
                            NAME: NO. 6180604 ter
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                       CITY: Seattle
STATE: Washington
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20-AUG-1997
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Pred. No. 1
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                                                                                                                                             Version #1.30
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                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: U5/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: West, Michael H.P. APPLICANT: Krieger, Timothy J. APPLICANT: Taylor, Robert APPLICANT: Erfle, Douglas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLIC
                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC-rey ulsk
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release
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mes 17; Conserv
                                                                                 Local Similarity
                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
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                                1 ILKKWPWWPWRRK 13
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INFORMATION:
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6300 Columbia Center, 701 Fifth Avenue
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                                                                Conservative
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                                                                               Score 91; DB 4; L; Pred. No. 8.1e-06;
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Pred. No. 6.2e-06;
                                                                Mismatches
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US-08-915-314-63
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; Patent No. 6180604
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Best Local Similarity
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                                                                                                                      GENERAL INFORMATION:
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                                                                                   APPLICANT:
APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
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                                                                                   West, Michael H.P.
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Taylor, Robert
Erfle, Douglas
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20-AUG-1997
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                                                                                                      Janet R
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Pred. No.
                                                                                                                                                                                                                                                                                                          Mismatches
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LOCATION: 13
OTHER INFORMATION:
US-08-915-314-63
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Best Local Similarity
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SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
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APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
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MEDIUM TYPE: Floppy disk
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ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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TELECOMMUNICATION INFORMATION:
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STREET: 6300 C
CITY: Seattle
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                            COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IMP C COMPATIBLE
COMPUTER: PROPOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATE: Patentin Release #1.0, Version #1.30
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
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                  PPLICATION NUMBER:
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6300 Columbia Center, 701 Fifth Avenue
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                       lor, Robert
MBER: US/08/915,314
10-AUG-1997
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NAME/KEY: Modified LOCATION: 13 OTHER INFORMATION: US-08-915-314-64
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Best Local Similarity
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SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
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                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
SOFTWARE: Patentin Release #1.0, Ve
APPLICATION NUMBER: US/08/915,314
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
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                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
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                           NEORMATION FOR
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                                                                          REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
                                                                                                                                     ATTORNEY/AGENT
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RATION NUMBER: 39,317
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Krieger, Timothy J.
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14 amino acids
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                                                                                                             6180604tenburg Ph.D., Carol
                                                                  (206) 622-4900
                                      SEQ ID NO:
                                                                                                                                               INFORMATION:
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20-AUG-1997
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                                                   682-6031
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                                                                           US-08-915-314-46
                                                                                                           RESULT
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Sequence 46, Appri
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
SEQUENCE CHARACTERISTI
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REFERENCE/DOCKET NUMBER: 07
TELECOMMUNICATION INFORMATION:
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APPLICANT: Hancock, Robert E. W.
APPLICANT: Gough, Monisha
TITLE OF INVENTION: ANTIMICROBIAL C
TITLE OF INVENTION: AND METHODS OF
NUMBER OF SEQUENCES: 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 23-AUG-1996
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/002,687
FILING DATE: 23-AUG-1995
ATTORNEY/AGENT INFORMATION:
NAME: Haile, Lisa A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM Compatible OPERATING SYSTEM: Window SOFTWARE: FastSEQ for Wi
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                                                                                                                                                                                                                                                                                                                                                          Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
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TOPOLOGY: linear
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14; Conservative
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FastSEQ for Windows Version 2.0b
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                                                                                                                                                                                                                                                                                                                                                       Score 89;
Pred. No.
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Sequence 52, APP-
No. 618060/
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Best Local S
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                               COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                           TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLLCIDIN
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NAME: NO. 6180604 tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
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MEDIUM TYPE: Floppy
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CURRENT APPLICATION DATA:
                                                                                                                                                                            NUMBER OF SEQUENCES:
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                                                                                         STREET: 6300 Colum
CITY: Seattle
STATE: Washington
COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                  ZIP: 98104
                                                                               COUNTRY:
                                                                                                                                            ADDRESSEE:
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6300 Columbia Center; 701 Fifth Avenue
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Taylor, Robert
Erfle, Douglas
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                                                                                                                                                                                                                                                                                         Fraser,
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Erfle, Douglas
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Michael H.P.
                                                                                                                                                                                                                                                                       Janet R.
ichael H.P.
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Pred. No. 3.7e
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                                                                                   INFORMATION FOR SEQ ID NO:
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NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PO-POS/MS-POS
OPERATING SYSTEM: PC-POS/MS-POS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                  APPLICATION NUMBER: US/0 FILING DATE: 20-AUG-1997 CLASSIFICATION: 424
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                STRANDEDNESS:
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6300 Columbia Center, 701 Fifth Avenue
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Taylor, Robert
Erfle, Douglas
                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fraser, Janet R. West, Michael H.P.
                                                 12 amino acids
                                                                                                   (206)
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linear
                                                                                                                  (206) 622-4900
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2.4e-05;
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                                                                                                                                                                                        ; TOPOLOGY: 1:
; MOLECULE TYPE:
US-08-702-054B-5
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                       RESULT 15
US-08-915-314-51
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Best Local Similarity 100.
Matches 12; Conservative
                                                                                                                           Matches
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Best Local 9
          Sequence 51,
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                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
tent No.
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                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 23-AUG-1996 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: FastSEQ for 1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Falls,
APPLICANT: Hancock,
                                                                                                                                                                                                                                                                                           TELEPHONE: 619/678-5070
                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: U
ZIP: 92037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 23-AUG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 ILKKWPWWPWRR 12
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                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER:
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                                                                                       1 ILKKWPWWPWRR 12
                                                                                                                                                                                                                                          ENGTH:
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                                                                                                                           12;
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                                                                                                                                          Similarity
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                                                                                                                                                                                                                              amino acid
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           Application US/08915314
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4225 Executive Square, Suite 1400
                                                                                                                                                                                                                                              12 amino acids
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                                                                                                                             Conservative
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23-AUG-1995
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100.0%;
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100.0%; Pr
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AND METHODS OF SCREENING FOR THE SAME
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                                                                                                                                       Score 86; Pred. No.
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GENERAL INFORMATION:

Fraser, Janet R. West, Michael H.P. Krieger, Timothy J

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APPLICANT: Taylor, Robert
APPLICANT: ETTLE, Douglas
TITLE OF INVENTION: UNDESTITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: NAMECTIONS USING ANALOGUES OF INDOLICIDIN

ROBERS OF STOURNCES: 90
CORRESPONDENCE ADDRESS:
ADDRESSE: SEED and BERRY LLP
STRETT: 6000 Columbia Center, 701 Fifth Avenue
CITY: Seattle
STRETT: 6100 Columbia Center, 701 Fifth Avenue
CITY: Seattle
STATE: Washington
COUNTRY: USA
COMPUTER READABLE FORM: PC-DOS/MS-DOS
COUNTRY: USA PETCHIN Release #1.0, Version #1.30
COUNTRY: USA PETCHIN RELEASE #1.0, Version #1.30
COURENT APPLICATION LUMBER: US/08/915,314
FILMS DATE: 20-AUG-1997
CLASSIFICATION #20-AUG-1997
CLASSIFICATION HORMATION:
AMPEL NO. 6180604tenburg Ph.D., Carol
REGISTRATION UNDERS: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELEPANE: (206) 622-4900
INFORMATION FOR SEQ ID NO: 51:
SEQUENCE CHARATENISTICS:
LENGTH: 13 amino acids
STRANDEDNESS:
LENGTH: 14 1.9%; SCOTE 86; DB 4: Length 13;
Best Local Similarity 41.9%; Pred. No. 3 4e-05;
Best Local Similarity
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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length: 2000000000
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Match Length
SCHNIZ-444-MODSEQ1.PEP
241
1 ILKKWPWWPWRRKHEAEDEAEPIMILKKWPWWPWRRK 37
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Gapop 10.0 , Gapext 0
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pir2:*
pir3:*
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        hypothetical prote
low-density lipopr
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45	44	3	42	41	40	39	38	37	36 6	S S	ω 4	ω w	32	ω μ	30
52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	53	53	53	53	53	53
21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	22.0	22.0	22.0	22.0	22.0	22.0
982	691	691	630	621	518	490	471	449	55	2292	949	691	480	424	406
r	N	N	N	N	N	N	N	N	N	N	N	N	ω	N	N
VCLJVS	E86025	G65150	S37663	S37664	T29589	T21365	T50016	C84618	T11026	S35961	E75352	D71430	JC7552	T07742	н69143
	hypothetical prote	hypothetical 75.1K	peplomeric polypro	peplomeric polypro	hypothetical prote	hypothetical prote	transcription fact	hypothetical prote	H+-transporting AT	capsid polyprotein	glycine cleavage s	hypothetical prote	Shb-like adapter p	omega-6 desaturase	coenzyme F420-redu

## ALIGNMENTS

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RESULT
H86543
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A;Note: sequence extracted from NCBI backbone (NCBIP:83840)
C;Superfamily: cathelin; cystatin homology
C;Keywords: amidated carboxyl end
F;1-29/Domain; signal sequence #status predicted <SIG>F;22-129/Domain: cystatin homology <CYS>
F;30-130/Domain: propeptide #status predicted <PRO>
F;313-143/Product: indolicidin #status experimental <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999 (;Accession: JC122; A42387; S25664 R;del Sal, G; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. Biochem. Biophys. Res. Commun. 187, 467-472, 1992 A;Title: CDNA cloning of the neutrophil bactericidal peptide indolicidin. A:Reference number: JC1222; MUID:92392368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
JC1222
hypothetical protein CPj0426 (imported) - Chlamydophila pneumoniae (strain J138) C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae C:Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 02-Mar-2001 C;Accession: H85543
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A;Title: Indollcidin, a novel bactericidal tridecapeptide amide from neutrophils. A;Reference number: A42387; MUID:92165771
A;Accession: A42387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: mRNA
A;Residues: 1-144 <SAL>
A;Cross-references: EMBL:X67340; NID:g462; PIDN:CAA47755.1; PID:g463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \begin{array}{ll} \text{indolicidin precursor - bovine} \\ \text{N;Alternate names: antimicrobial peptide} \end{array}
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              F;143/Modified site: amidated carboxyl end (Arg) (amide in mature form from followi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Experimental source: bone marrow
                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 10; Conser
                                                                                                                                                                                                                                                             126 ELQSVILPWKWPWWPWRR 143
                                                                                                                                                                                                                                                                                              19 EAEPIMILKKWPWWPWRR 36
                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                    32.4%;
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                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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R; Shirai, M.; Hirakawa, H.; Kimoto, M.; Tabuchi, Nucleic Acids Res. 28, 2311-2314, 2000

A;Title:

Comparison of whole

sequences of chlamydia pneumoniae J138

M.; Kishi,

"] .

Ouchi, K.; Shiba,

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A;Title: Molecular cloning of a maltose transport (A;Reference number: S43914; MUID:94247374 A;Accession: S43916 A;Status: preliminary A;Molecule type: DNA
                                                                                                                    RESULT 4
S43916
S4916
hypothetical protein 3 - Bacillus stearothermophilus
C;Species: Bacillus stearothermophilus
C;Species: 7-Jan-1995
C;Date: 27-Jan-1995
C;Date: 27-Jan-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N;Alternate names: hypothetical protein CT277 homolog
C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae
C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 11-May-2000
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C;Genetics:
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A; Residues: 1-192 <STO>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Title: Comparative genomes of Clamydia pneumoniae and C. A; Reference number: A72000; MUID:99206606
A; Accession: D72081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R; Kalman, S.; Mitchell,
Nature Genet. 21, 385-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Nucleic Acids Res. 28, 1397-1406, 2000
A;Title: Genome sequences of Chlamydia trachomatis Ma;Reference number: A81500; MUID:20150255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          conserved
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A; Residues: 1-192 < REA>
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R; Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-192 < A
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Best Local S
Matches 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                   CPn0426;
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                                                                                                                                                                                                                                                                          WPWLPKKRQIEKLPKGEGICFLSAYP 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 Similarity
11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1-192 <ARN>
                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                   CP0327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chell, W.; Marathe, R.; 385-389, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GB:BA000008; NID:g8978798; PIDN:BAA98634.1; GSPDB:GN00142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26.18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95; GB:AE002161;
AR39, HL cells
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 63; DB
Pred. No. 0.8;
4; Mismatches
                                                                                                                                                                                                                                                                                                                                                              Score 63;
Pred. No.
                                                                                                                                                                                                                                                                                                                                               4.
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                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                      27-Jan-1995 #text_change
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).8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NID:g7189246; PIDN:AAF38182.1; PID:g71892
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                                                                                                                                                                                                                                                                                                                                                                                Length 192;
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                                                                                   Bacillus stearothermophilus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g, J.F.; White, O.;
J.; McClarty, G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Olinger, L.; Grimwood,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chlamydophila
                                                                                                                                                          15-Oct-1999
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C;Genet1
A;Gene:
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T36208
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A; Note: the authors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Species: Streptomyces coelicolor C; Date: 03-Dec-1999 #sequence_revi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Residues: 1-314 <LIO>
                                                                                                                                                                                                                                                   R:Petrov, N.A.; Chizhikov, V.E.; Blinov, V.M.; Karg Bloorg. Khim. 10, 274-279, 1984
A;Title: Nucleotide sequence of the 3'-terminus of A;Reference number: JN0383; MUID:85022788
A;Accession: JN0383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Note: host Homo sapiens (man)
C;Date: 28-Aug-1985 #sequence_revision 28-Aug-1985 #text_change
C;Accession: A03906; JN0383
R;Palmenberg, A.C.; Kirby, E.M.; Janda, M.R.; Drake, N.L.; Duke,
Nucleic Acids Res. 12, 2969-2985, 1984
A;Title: The nucleotide and deduced amino acid sequences of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Reference number: Z21601
A; Accession: T36208
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A; Note: the authors translated the codon CAU for residue 713 as C; Superfamily: foot-and-mouth disease virus genome polyprotein C; Keywords: coat protein; core protein; genome-linked protein; h; 1-67/Domain: leader peptide *status predicted <LDP F; 68-136/Product: coat protein VP4 *status predicted <VP4 F; 68-136/Product: coat protein VP4 *status predicted <VP4 *status predicted *VP4 *s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: A03906; MUID: 84169586
A; Accession: A03906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genome polyprotein - encephalomyocarditis virus N;Contains: coat protein VP1; coat protein VP2; coat protein VP3; coat protein VP4; EC 3.4.-.-); RNA-directed RNA polymerase (EC 2.7.7.48) C;Species: encephalomyocarditis virus, EMCV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-114 <OLI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary; translated from GB/EMBL/DDB:
                                                                                                                                                            A; Molecule type: genomic RNA
A; Residues: 1337-1396, 'L', 139
A; Cross-references: GB: M54935
                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: genomic RNA
A; Residues: 1-2290 < PAL>
                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:X00463;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 10
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17; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL: AL049763;
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a Library,
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                                                                                                                                                                                                        1398-1517,'A',1519-1536,'E',1538-1556,'S',1558-1611,'T',161
                                                                                                                                                                                                                                                                                                                                                                                         3; NID:g61034; PIDN:CAA25152.1; PID:g61035
E.; Blinov, V.M.; Karginov, V.A.; Mikryuk
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Pred. No. 1.8;
5; Mismatches
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Pred.
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protein

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C; Accession: $74708
R; Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asano, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, NA Res. 3, 109-136, 1996
NNA Res. 3, 109-136, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R.Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alons Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, F. ansen, N.F.; Hughes, B.; Hulzar, L. Nature 408, 816-820, 2000

A.; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marzial Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.

A.; Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallor, Ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A.; Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
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F;623-910/Product: coat protein VP1 #status predicted <VP1>
F;911-1056/Product: core protein P2-A #status predicted <P2A>
F;1057-1192/Product: core protein P2-B #status predicted <P2B>
F;1057-1192/Product: core protein P2-C #status predicted <P2C>
F;1193-151//Product: core protein P2-C #status predicted <P2C>
F;1518-1605/Product: core protein P3-A #status predicted <P3A>
F;1606-1625/Product: genome-linked protein VPg #status predicted <PG>
F;1626-1830/Product: proteinase #status predicted <PTS>
F;1631-2290/Product: RNA-directed RNA polymerase #status predicted <RDP
                                                                    A; Reference number: S74322; A; Accession: S74708
                                                                                                                                                                                                                                                            hypothetical protein slr1306 - Synechocystis sp: (strain PCC 6803)
C;Species: Synechocystis sp.
A;Variety: PCC 6803
C;Date: 25-Apr.1997 #sequence_revision 25-Apr-1997 #text_change 08-Oct-1999
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A; Map position:
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A; Molecule type: DNA
A; Residues: 1-485 <K
                                               A; Status: preliminary
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A; Residues: 1-95 <STO>
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Best Local Similarity 26.2
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;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Mar-2001
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                                                                                               MUID:97061201
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Pred. No. 1.2;
5; Mismatches
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Pred. No. 29;
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                                                                                                                                                                                                              E.; Nakamura
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Yamada, M.; Yasuo
                                                                                                                                          Synechocysti
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war, K.;
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RESULT T40591

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373 IFSKWCWFNWRATCRRMQIDPCLSPCTKLKSKW 405

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                                                                                                                       C;Superfamily: pol polyprotein
C;Keywords: nucleotidyltransferase; polyprotein;
                                                                                                                                                                                                                                                                                                                                                               probable RNA-directed DNA polymerase (EC 2.7.7.49) (clone MH2C) - N;Alternate names: reverse transcriptase C;Species: Rattus norvegicus (Norway rat) (C;Date: 19-Mar-1997 #sequence_revision 17-Oct-1997 #text_change 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hypothetical protein SC6G9.38 - Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Species: O5-Nov-1999 #sequence_revision O5-Nov-1999 #text_change O5-Nov-1999
                                                                                                                                                                                                   A;Molecule type: mRNA
A;Residues: 1-513 <KAH>
A;Cross-references: EMBL:X61295; NID:g56521; PIDN:CAA43593.1; PID:g56522
A;Experimental source: clone MH2C
                                                                                                                                                                                                                                                                        R:Kahre, O.; Ilves, H.; Speek, M.
submitted to the EMBL Data Library,
A;Reference number: S16783
A;Accession: S21976
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A; Residues: 1-107 <SES>
A; Cross-references: EMBL: ALO79356;
A; Experimental source: strain A3(2)
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A;Accession: T35634
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Best Local S
Matches 10
                                                                                                                                        Superfamily: pol polyprotein
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Best Local Similarity
Matches 12; Conser
                                  Query Match
Best Local Similarity
Matches 13; Conserv
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10; Conservative
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                                                   24.1%;
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Pred.
                                                   Score 58;
Pred. No.
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                                                                                                                                                                                                                                                                                                             August 1991
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ed. No. 1.8;
Mismatches
                                    Mismatches
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6.6;
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hypothetical protein SPBC646.15c - fission yeast (Schizosaccharomyces pombe) C:Species: Schizosaccharomyces pombe C:Species: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 04-Mar-2000 C:Accession: T40591
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A;Molecule type: DNA
A;Residues: 1-376 <SEE>
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C40046
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: The act cluster contains regulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antiblotic transport-associated protein actII-3 - Streptomyces coelicolor
C;Species: Streptomyces coelicolor
C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 22-Oct-1999
C;Accession: C40046
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A; Accession: T40591
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A; Residues: 1-711 <FER>
A; Cross-references: GB: M64683; NID: g153143;
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                                                                                                                                                                submitted to the EMBL Data Library, A; Reference number: Z20468 A; Accession: T28094
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Map position:
               A; Map position: X
                                    A;Gene:
                                                                       A;Cross-references: EMBL:237140; PIDN:CAA85502.1; GSPDB:GN00028; A;Experimental source: clone ZK899
                                                                                                                           A; Molecule type:
                                                                                                                                             A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                            R;Kershaw,
                                                                                                                                                                                                                                                                              hypothetical protein ZK899.2 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
                                                                                                            A;Residues: 1-452 <WIL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 23.9
Best Local Similarity 37.0
Matches 10; Conservative
                                                                                                                                                                                                                                           ; Accession:
                                                                                                                                                                                                                                                             ;Date: 15-Oct-1999 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local (
                                                      Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  236 WHWKRKQKSSS-----LKVRPWGPW 255
                                                                                                                                                                                                                                                                                                                                                                                            332
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                                                                                                                                                                                                                                                                                                                                                                                                              1 ILKKWPWWPWRRKHEAEPE 19
                                CESP: ZK899.2
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                                                                                                                                                                                                                                                                                                                                                                                            IFGRWVFWPARPKHGTEPD 350
                                                                                                                                                                                                                                             T28094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
9; Conserv
                                                                                                                             DNA
143/2; 227/2; 262/3; 380/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             o, M.A.; Caballero, J.L.; Hopwood, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 57;
Pred. No.
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Pred. No. 7
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January 1999
                                                                                                                                                                                                       September
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                               15-Oct-1999 #text_change 04-Mar-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIDN:AAA26691.1; PID:g153146
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GSPDB:GN00067;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D.A.; Malpartida, F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein SPBC646.15c
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                                                                                        CESP: ZK899.2
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RESULT
S33068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Superfamily: Caenorhabditis elegans hypothetical protein 2K899.2
                                                                                                                                                                                                                                     R;Solsson, L.M.A.; Masterson, C.P.; Tom, T.D.; McNally, M.T.; Lowell, G.H.; J. Immunol. 149, 3612-3620, 1992
A;Tithe: Induction of protective immunity in mice using a 62-kDa recombinant A;Reference number: A46514; MUID:93056536
A;Accession: S33068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
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                                                                                                                                          A;Cross-references: EMBL:X65591
A;Note: the authors translated the
C;Superfamily: myosin heavy chain;
C;Keywords: ATP; surface antigen
                                                                                                                                                                                                                                                                                                                                     C; Species: Schistosoma mansoni
C; Date: 22-Nov-1993 #sequence
                         9
                                                                                                                                                                                                                                                                                                                                                                      myosin heavy chain - fluke (Schistosoma mansoni) (fragment) N;Alternate names: surface antigen, 200K
₽
                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-527 <SOI>
                                                            Query Match
Best Local S
Matches 12
                                                                                                                                                                                                                                                                                                                       Accession: S33068
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Best Local
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106 VLRNWPWWRLYTKVKPMLNIARQEEEMKKAAEELAKLKE 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        172 KLVWWTW---HDTDPN----IFDRMNWVPW 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 KWPWWPWRRKHEAEPEAEPIMILKKWPWWPW 34
                            1 ILKKWPWW-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                            Similarity 30.1
l2; Conservative
                                                                                                                                                                                                                                                                                                                                        #sequence_revision 06-Sep-1996 #text_change 13-Feb-1998
                                PW----RRKHEAEPEAEPIMILKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23.2%;
                                                                               23.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 56; DB Pred. No. 14; 3; Mismatches
                                                                             Score 55.5;
Pred. No. 19;
                                                                                                                                                            myosin motor domain ho
                                                                 Mismatches
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14;
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                                                                                              Length 527;
                                                                                                                                                              homology
                                                                   Indels
                                                                                                                                                                               346
                                                                   11;
                                                                                                                                                                               Lys
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                                                                   Gaps
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A;Gene: env (;Superfamily: visna lentivirus type E retrovirus env polyprotein (;Superfamily: visna lentivirus type E retrovirus env polyprotein; C;Keywords: capsid protein; coat protein; glycoprotein; polyprotein; F;1-101/Domain: signal sequence #status predicted <SIG>F;102-662/Product: exterior membrane glycoprotein #status predicted <F;663-990/Product: transmembrane glycoprotein #status predicted <Fi>F;663-990/Product: t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Priority G.; Audoly, G.; Sonigo, P.; Vigne, R. Virology 175, 434-447, 1990
A;Title: Nuclectide sequence analysis of SA-OMYV, A;Reference number: A46335; MUID:90223989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Date: 17-Feb-1994 #sequence_revision 17-Feb-1994
                                                                                                                                                                                                                                         F;663-689/Region: hydrophobic
F;842-863/Domain: transmembrane #status predicted <TMN>
F;141,162,207,259,299,363,386,402,413,434,438,469,474,480,490,500,514,526,536,542,550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N; Contains: exterior membrane glycoprotein; transmembrane glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N; Alternate names:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: 1
A;Residues: 1-990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:M31646; NID:g808756; PIDN:AAA66817.1; PID:g332551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Accession: G46335
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Species: Maedi/Visna virus
                                     Query Match
Best Local 9
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Matches
                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             precursor -
     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <QUE>
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                                     23.0%;
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     9;
                                                     Score 55.5;
Pred. No. 3
     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  virus
                                                          38;
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                                                                                                    DB
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                                                                                               Length 990;
Indels
     39;
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     Gaps
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Sear Job	Db	Qy	Ф	Ş
ch com time:	234	26	174	ω
Search completed: June 21, 2001, 08:39:32 Job time: 158 sec	234 LKCEEWCWYP 243	26 LKKWPWWP 33	QEWPWN	KKWPW-
l: June	CWYP 2	DWWP 3	QEWPWNTYHWPI	WP
. 21,	243	ũ	MOMENI	
2001,			MRQWMK	WRR
08:39:			ROWMKENEKEYTSR	KHEAEI
32			TSRNN	PEAE
			KTKEDI	
			DALLAG	1
			174 QEWPMNTYHWPLWQMENMRQWMKENEKEYTSRNNKTKEDIDALLAGKIRGRFCVPYPFAL 233	KKWPWWPWRRKHEAEPEAE
			CVPYPE	p.
			; FAL 23	IMI 25
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein -
          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                                                                                                                                                  5522.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.5552.55
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
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        SwissProt_39:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
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VGL2_IBVD2
VGL2_IBVB
VGL2_IBVK
                                                                                                                                                                                                                                                                                                                                                                                                    VGL2_CVH22
FD6C_SOYBN
ATP8_AYTAM
E434_ADE40
YHJG_ECOLI
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YD55_MYCTU
AP22_APIME
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VGL2_IBVM
VGL2_IBVA
V12I_BPT4
V12I_BPT4
VGL2_IBVA
DSBB_NEIMB
FD6C_ARATH
FD6C_BRANA
ENV_VILVI
YA05_SCHPO
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POLG_EMCV
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Q45633 bacillus st
P03304 encephalomy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *Molecular cloning of a maltose transport gene from Bacillus stearothermophilus and its expression in Escherichia coli K-Mol. Gen. Genet. 243:343-352(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacteria; Firmicutes; Bacillus/Clostridium group;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
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                                      POLG_EMCV STANDARD; PRT; 2290 AA.

P03304;

P03304;

21-JUL-1986 (Rel. 01, Created)

21-JUL-1986 (Rel. 01, Last sequence update)

15-DEC-1998 (Rel. 37, Last senotation update)

GENOME POLYPOTEIN (CONTAINS: COAT PROTEINS VP1 TO VP4; C

P2A TO P2C, P3A; GENOME-LINKED PROFEIN VPG; PICORNAIN 3C

(EC 3.4.22.28) (PROTEASE 3C) (P3C); RNA-DIRECTED RNA POLY

(EC 2.7.7.48)
                                                                                                                                                                                                                                                                                                                                                                      Hypothetical SEQUENCE 31
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            lruses; ssRNA positive-strand viruses,
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RNA-directed RNA polymerase;
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pfam; pr00073; rhv; 3.
polyprotein; Coat protein; Core
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                                                                                                                          6 PWWPWRRKHEAEPEAEPI----
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MBRANE PROTEIN ACTII-3.
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                                                    STANDARD;
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COAT PROTEIN VP2
COAT PROTEIN VP3
COAT PROTEIN VP1
CORE PROTEIN P2A
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PICORNAIN 3C (P22)
RNA-DIRECTED RNA POLYMERASE P3D
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                                                                                                                                                           Score 59.5;
Pred. No. 10;
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PROTEASE (POTENTIAL).
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PROTEIN P2C
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01-OCT-1996 (Rel. 34, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
ATP SYNTHASE PROTEIN 8 (EC 3.6.1.34) (ATPASE
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                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
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                                                                             "Molecular characterization and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      332
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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9; Conser
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37:296-310(1993)
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M.A., Caballero J.L.,
                                                                                                                                                                                                                                                                                                                                                         Neognathae;
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Pred. No. 6
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Best Local
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                    entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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between the Swiss Institute of Bioinformatics and the EMBL outst
the European Bioinformatics Institute. There are no restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Querat G., Audoly G., Sonigo P.,
"Nucleotide sequence analysis of
lentivirus: phylogenetic history
Virology 175:434-447(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-90223989;
Querat G., Audoly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ovine lentivirus
Viruses; Retroid
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01-JUN-1994
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InterPro; IPR001421; -.
Pfam; PF00895; ATP-synt_8; 1.
Hydrogen ion transport; CF(0); Mitochondrion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no was modified and this statement is not removed. Usage by and for commercial
                                                                                                                                   CHAIN
                                                                                                                                                                              Glycoprotein;
                                                                                                                                                                                                                                         PIR; G46335; G46335.
HIV; M34193; ENVSOMVVSACG.
                                                                                                                                                                                                                                                                                    EMBL; M34193; AAA46783.1; -. EMBL; M31646; AAA66817.1; -.
                                                                                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ENV POLYPROTEIN
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                                                                                                                                                            PEPTIDE
                                                                                                                                                                                                  Pfam; PF00517; GP41;
                                                                                                                                                                                                                       InterPro; IPR000328;
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SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8 FAMILY
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9; Conserv
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viruses; Retroviridae; Lentivirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15, Createo,
15, Last sequence update)
29, Last annotation update)
PRECURSOR (COAT POLYPROTEIN).
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    protein;
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Pred. No. 0.
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41284ABAB1525B99 CRC64;
                                                                                                          TRANSMEMBRANE GLYCOPROTEIN
                                                                                                                                   EXTERIOR MEMBRANE GLYCOPROTEIN
                                                                                        POTENTIAL.
                                                                                                                                                          LEADER PEPTIDE
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SA-OMVV, a visna
of lentiviruses.
(GLCNAC...)
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Matches 14
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Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harri Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Children S., Seeger K., Skelton S., Squares S., Sqares R., Sulston Taylor K., Whitehead S., Barrell B.G.;
"Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.";
Nature 393:537-544(1998).
                                                                                                                                                                                                    Mycobacterium tuberculosis.
Bacteria; Firmicutes; Actinobacteria
Actinomycetales; Corynebacterineae;
                                                                                                                                                                                                                            01-OCT 1996 (Rel. 34, Created)
01-OCT 1996 (Rel. 34, Last sequence update)
30-MAY 2000 (Rel. 39, Last annotation updat
HYPOTHETICAL 78.2 KDA PROTEIN RV1355C.
RV1355C OR MTCY02B10.19C.
                                                                                                                                                                                                                                                                          YD55_MYC
                                           This
                                                                                                                                                                                            Actinomycetales;
NCBI_TaxID=1773;
                                                                                                                                                                                                                                                                                             MYCTU
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                 European Bioinformatics Institute.
by non-profit institutions as 1
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                          SWISS-PROT entry is copyright. It is produced through a collaboratic een the Swiss Institute of Bioinformatics and the EMBL outstation European Bioinformatics Institute. There are no restrictions on it
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Similarity 20.0%;
14; Conservative
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9; Mismatches
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Best Loc
Matches
EMBL; X72576; CAA51168.1; -.

PIR; S05383; S05383.

PIR; S06675; S06675.

PIR; S35331; S35331.

InterPro; IPR001979; -.

Pfam; PF00807; Ap1daecin; 4.

Insect immunity; Antibiotic; Hemolymph; Signa: Cleavage on pair of basic residues; Repeat.

Cleavage on pair of basic residues; Repeat.

SIGNAL 1 19 POTENTIAL.

PROPEP 35 42

PROPEP 63 70 APIDAECIN IB.

PROPEP 71 88 APIDAECIN IB.

PROPEP 91 98
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P35581; P11525; P11526;
01-CCT-1989 (Rel. 12, Created)
01-UN-1994 (Rel. 29, Last sequence upda
01-UN-1994 (Rel. 29, Last annotation upda
01-UN-1994 (Rel. 29, Last annotation upda
pridaecin precursor, Type 22.
Apis mellifera (Honeybee).
Eukaryota; Metazoa; Arthropoda; Tracheat
Pterygota; Neoptera; Endopterygota; Hyme
Apoldea; Apidae; Apis.
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                                                                                                                                                                                                                                                                                             SEQUENCE (APIDAECINS IA/IB). TISSUE-Hemolymph; MEDLINE-90005446; PubMed-267
                                                                                                                                                                                                                                                                                                                                                                                                       Casteels-Josson K., Capaci T., Casteels P., ? "Apidaecin multipeptide precursor structure: amplification of the insect antibacterial remains J. 12:1569-1578(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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Pfam; PF00899; ThiF_family;
                                                                                                                                                                                  entities requires a license agreement (Some send an email to license@isb-sib.ch).
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Hymenoptera; Apocrita; Aculeata;
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                 Interro.; IPR002306; IRNA-Synt_1e; 1.
Pfam; PF01406; tRNA-Synt_1e; 1.
PFINTS; PR00983; TRNA-SYNTHCYS.
PROSITE; PS00178; AA_TRNA_LIGASE_I; FALSE_NEG.
PROSITE; PS00178; AA_TRNA_LIGASE_I; FALSE_NEG.
PROSITE; PS00178; AA_TRNA_LIGASE_I; FALSE_NEG.
PROSITE; PS00178; AA_TRNA_LIGASE_I; FALSE_NEG.
PROSITE; PS00178; AA_TRNA_LIGH" REGION.
"HIGH" REGION.
SITE
BINDING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-98295987; PubMed-9634230; Garnier T., Churcher C., Harri Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harri Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Feltwell T., Gentles S., Hamiln N., Holroyd Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Sqares R., Sulston Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence."; Nature 393:537-544(1998).
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30-MAY-2000 (Rel. 39, Last annotation update)
CYSTEINYL-TRNA SYNTHETASE 1 (EC 6.1.1.16) (CYSTEINE--TRNA LIGASE 1)
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SYC1_MYCTU
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                                                                                                                                                                                                or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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NCBI_TaxID=1773;
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CYSS1 OR CYSS OR RV3580C OR
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15-JUL-1998 (Rel. 36,
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J. Gen. Virol. 71:1065-1073(1990).

-i- FUNCTION: THE PEPLOMER PROTEIN MEDIATES THE BI

TO THE HOST CELL RECEPTOR AND IS INVOLVED IN M

AND IN SYNCYTIUM FORMATION.

-i- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human coronavirus (strain 298)
Viruses; ssRNA positive-strand
Coronaviridae; Coronavirus.
NCBI_TaxID=11137;
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01-APR-1990 (Rel. 14, Last
15-JUL-1999 (Rel. 38, Last
E2 GLYCOPROTEIN PRECURSOR
                                                                                                                                                                                                                                                   SIGNAL
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Pfam; PF01601; Corona_S2; 1.
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P48628;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
01-FEB-1996 (Rel. 33, Last annotation update)
0MEGA-6 FATTY ACID DESATURASE, CHLOROPLAST
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                                                                                                                                                                                                                                                                                                                                                                                                                                   and its expression in a cyanobacterium.";

plant physiol. 105:635-641(1994).

plant physiol. 105:635-641(1994).

plant physiol. 105:635-641(1994).

THE SECOND COUBLEBOND IN THE BIOSYNTHESIS OF 16:3 AND 18:3 FATTY ACIDS, IMPORTANT CONSTITUENTS OF PLANT MEMBRANES. IT IS THOUGHT ACIDS, IMPORTANT CONSTITUENTS OF PLANT MEMBRANES. IT IS THOUGHT ACIDS, OUSE FERREDOXIN AS AN ELECTRON DONOR AND TO ACT ON FATTY ACIDS ESTERIFIED TO GALACTOLIPIDS, SULFOLIPIDS AND PHOSPHATIDYLGLYCEROL.

PATHWAY: POLYUNSATURATED FATTY ACID BIOSYNTHESIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-94345008; PubMed-8066133; Hitz W.D., Carlson T.J., Booth J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-Seed;
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                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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DOMAIN: THE HISTIDINE BOX DOMAINS MAY CONTAIN THE ACTIVE SITE AND/ OR BE INVOLVED IN METAL ION BINDING.
SIMILARITY: TO OTHER PLANT CHLOROPLAST OMEGA-6 FATTY ACID
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                                                                                                                                                                                                                                                                                                                                         DESATURASES.
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                                                                       pF00487; FA_desaturase; 1.
reductase; Fatty acid biosynthesis; Chloroplast; Membrane;
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15-DEC-1998 (Rel. 37, Cre

15-DEC-1998 (Rel. 37, Las

15-DEC-1998 (Rel. 37, Las

EARLY E4 30 KDA PROTEIN.
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SEQUENCE FROM N.A.

SOMENSON M.D., Dimcheff D.E., Ast J.C., Yuri T., Mindell D.P.;

SCOMPLETE mitochondrial DNA sequences for five birds and a turtle.";

"Complete mitochondrial DNA sequences for five birds and a turtle.";

"Complete mitochondrial DNA sequences for five birds and a turtle.";

Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.

Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.

"In FUNCTION: THIS IS ONE OF THE CHAINS OF THE NONENZYMATIC COMPONENT."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aythya americana
                                                                                                                                                                                                                                           EMBL; ARUVUALL; -
INTERPO; IPR001421; -
Pfam; PF00895; ATP-SYNT_8; 1.
Hydrogen ion transport; CF(0); Mitochondrion; Transmembrane.
Hydrogen ion transport; S25DE2020B525B99 CRC64;
                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (Stor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long as modified and this statement is not removed. I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Archosauria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mitochondrion
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=30385;
                                                                                                                                                                                                                                                                                                             EMBL; AF090337; AAD32256.1; -.
 Viruses; dsDNA viruses,
              Human adenovirus type 40.
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                                                                                                                                                 37
                                                                                                                                                                                                                                                                                                                                                                                                                                   (CF(0) SUBUNIT) OF THE MITOCHONDRIAL ATPASE COMPLEX SUBCELLULAR LOCATION: MEMBRANE-BOUND. SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8 FAMILY.
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361
                                    (Rel. 37, Created).
(Rel. 37, Last sequence up.
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HISTIDINE BOX 3.
4F3DF52D4BlA2009
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Pred. No. 1.9;
3; Mismatches
     RNA stage;
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      Adenoviridae;
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                                                    This SWISS-PROT entry is copyright. It is produced the EMBL outcome between the Swiss Institute of Bioinformatics and the EMBL outcome between Bioinformatics Institute. There are no restrictions in the Swiss Institute. There are no restrictions as long as its content is in the swiss and swiss of the swi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=K12 / MG1655;
MEDLINE=94316500; PubMed=8041620;
Sofia H.J., Burland V., Daniels D.L.,
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                                                                                                                                                                                                                                                               MEDLINE=97426617; PubMed=9278503;
Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland
Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Escherichia
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15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
HYPOTHETICAL 75.1 KDA PROTEIN IN TREF-KDCK INTERGENIC
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                                                                                                                                                                                                                                                                                                                                                                                                                      "Analysis of the Escherichia coli genome. region from 76.0 to 81.5 minutes.";
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               or send
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                                  entities requires a license agreement (See http://www
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                                                                                                                                                                                 mplete genome sequence of Escherichia coli K-12."; 277:1453-1474(1997).
                                                                                                                                                                                                                              Shao Y.;
                 an email
                                                                                                                                                                                                                                                  ., Davis N.W., Kirkpatrick H.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Proteobacteria;
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                   license@isb-sib.ch).
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informatics and the EMBL outstation -
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TRANSMEM 12 32
TRANSMEM 652 672
SEQUENCE 691 AA; 75
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Viruses; Retroid v
NCBI_TaxID=11742;
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21-JUL-1986
15-JUL-1999
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Sonigo P., Alizon M., Staskus K., Klatzmann D.
Retzel E., Tiollais P., Haase A., Wain-Hobson
"Nucleotide sequence of the visna lentivirus:
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ECOGene; EG12251; yhjG.

Transmembrane
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EMBL; U00039; CAB34647.1; ALT_
EMBL; AE000429; AAC76549.1;
          CARBOHYD
CARBOHYD
                                                                                                                                                 EMBL; M10608; -; NOT_ANNO; EMBL; M51543; -; NOT_ANNO; EMBL; A15114; CAA01216.1; PIR; A03977; VCLJVS.
                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                          gene and sequence homology among lentivirus J. Virol. 61:4046-4054(1987).
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"The visna virus genome: evidence for a hypervariable site
                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE=88062965; PubMed=2824836;
MEDLINE=88062965; PubMed=2824836;
MEDLINE=8062965; PubMed=2824836;
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Cell 42:369-382(1985).
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                                                                         CHAIN
                                                                                             Glycoprotein;
PEPTIDE
                                                                                                                                       HIV; M10608;
CARBOHYD
                              CARBOHYD
                                          CARBOHYD
                                                   CARBOHYD
                                                                                     CHAIN
                                                                TRANSMEM
                                                                                                                   Pfam; PF00517;
                                                                                                                              [nterPro;
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                                                                                                                             IPR000328;
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(Rel. 01, Last sequence update)
(Rel. 38, Last annotation update)
IEIN PRECURSOR (COAT POLYPROTEIN).
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101
657
835
140
161
206
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298
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                                                                                                        Coat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD
                                                                                                                   GP41;
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viruses; Retroviridae; Lentivirus
                                                                                                                                                                                 NOT_ANNOTATED_CDS.
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75130
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Pred.
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LEADER PEPTIDE
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                                                               TRANSMEMBRANE POTENTIAL.
                                                                                     EXTERIOR MEMBRANE
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No. 24;
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                                                      (GLCNAC.
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                                                                                                         Transmembrane
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                                                                            GLYCOPROTEIN
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                                                                                     GLYCOPROTEIN
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Search completed: June 21, 2001, 08:44:55 Job time: 351 sec
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Best Local Similarity 33.3%;
Matches 10; Conservative
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982 AA;
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OM protein - protein search, using sw model
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Perfect score:
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Listing first 45 summaries
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Maximum DB
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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26.1
26.1
25.7
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Copyright (c) 1993 - 2000 Compugen Ltd
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27
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sp_bacteria:*
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                                                                                                                                                                                                                                                                                                                                                  sp_rodent:*
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(without alignments)
101.142 Million cell updates/sec
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Q9JH31
Q9DUC4
Q9DT80
Q9Z8B7
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Q63289
Q63779
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Q61427
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   O9y7v5 trichoderma
Q9yh31 tt virus. o
Q9duc4 tt virus. o
Q9duc4 tt virus. o
Q9dt80 tt anydia p
Q9dt81 tt virus. o
Q9dt82 streptomyce
Q66765 encephalomy
Q91qn0 arabidopsis
p72844 synechocyst
Q9xae4 streptomyce
Q63289 rattus norv
Q63799 rattus norv
Q99yrr9 human immun
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## ALIGNMENTS

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Query Match 29.0
Best Local Similarity 29.0
Matches 9; Conservative
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                                     09JH31;
09JH31;
01-OCT-2000
01-OCT-2000
01-OCT-2000
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Puyesky M., Benhamou N., Ponce Noyola P., Bauw G., 2iv T., Puyesky M., Herrera Estrella A., Horwitz B.A.;

van Montagu M., Herrera Estrella A., Horwitz B.A.;

van Montagu M., Herrera Estrella A., Horwitz B.A.;

"Developmental regulation of a gene encoding a multidomain conditions of a gene encoding a multidomain conditions submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; AJ133651; CAB40845.1;

EMBL; AJ133651; CAB40845.1;

EMBL; AJ133651; CAB40845.1;

SEQUENCE 1245 AA; 135824 MW; 3249C749AFAOCDF8 CRC64;
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01.NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-NOV-1999 (TrEMBLrel. 12, Last annotation update)
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Eukaryota; Fungi; Ascomycota; mitosporic Ascomycota; Trichoderma.
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ORF1.
TT virus.
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(TrEMBLrel. 15, Last sequence update)
(TrEMBLrel. 15, Last annotation update)
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Pred. No. 1.2;
2; Mismatches
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Last annotation update)

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Best Local Similarity
Matches 11; Conser
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NCBI_TaxID=68887;
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01-MAR-2001
01-MAR-2001
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NCBI_TaxID=68887;
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  Q9DT80;
Q9DT80;
01-MAR-2001
01-MAR-2001
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Virology 277:368-378(2000).
EMBL; AB041959; BAB19313.1;
SEQUENCE 723 AA; 85393 M
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"Species-specific TT viruses in h
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ENCE 746 AA;
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Miyakawa Y., Mayumi M.;
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Matches 10
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ORF1 (FRAGMENT)
TT virus.
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NCBI_TaxID=68887;
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EMBL; AB050449; BAB19930.1;
NON_TER 49 49
SEQUENCE 49 AA; 7225 MW;
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01-MAY-1999
01-MAY-1999
01-MAR-2001
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Sai T., Sugai Y.;
*TT virus mRNAs detected
individual.";
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CPN0426 OR CPJ0426 OR CP0327.
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                                                                                                                                                                                                                                                                                                                                                                                        Chlamydia pneumoniae (Chlamydophila pneumoniae).
Bacteria; Chlamydiales; Chlamydiaceae; Chlamydophila.
                                                                                                                                                                                                                                                                                   Kalman S., Mitchell W., Marathe R., Lammel C. Olinger L., Grimwood J., Davis R.W., Stephens "Comparative genomes of Chlamydia pneumoniae Nat. Genet. 21:385-389(1999).
                                                                                                                                                                                                                                                                                                                                 MEDLINE-99206606; PubMed-10192388;
                                                                                                                                                                                                                                                                                                                                            STRAIN-CWL029
                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID-83558;
                                                                          MEDLINE-20150255, PubMed-10684935,
Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelbe Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelbe Reidelbe, Hickey E.K., Peterson J., Umayam L.A., Utte Berry K., Bass S., Linher K., Weidman J., Khouri H., Bowman C., Dodson R., Gwinn M., Nelson W., DeBoy R., McClarty G., Salzberg S.L., Eisen J., Fraser C.M.;
                                                                                                                                                                                                              Shirai M., Hirakawa H., Kimoto M., Tabu
Shiba T., Ishii K., Hattori M., Kuhara
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                                                                                                                                                                                                                                                                                  Nat. Genet.
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
          "Genome sequences of Chlamydia trachom pneumoniae AR39.";
Nucleic Acids Res. 28:1397-1406(2000).
EMBL; AE001625; AAD18570.1;
EMBL; AP002246; BAA98634.1;
EMBL; AE002194; AAF38182.1;
                                                                                                                                                                                                                                    MEDLINE-20330349; PubMed-10871362;
 EMBL;
EMBL;
TIGR;
                                                                                                                                                                               "Comparison of whole genome sequences of from Japan and CWL029 from USA."; tucleic Acids Res 28.221
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nilarity 30.3%;
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01-MAR-2001
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TT virus.
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Okamoto H., Nishizawa T., Tawara A
Sai T., Sugai Y.;
"TT virus mRNAs detected in the bo
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                                                                                                                                    TISSUE-LIVER;
MEDLINE-87064324; PubMed-3023845;
MEDLINE-87064324; PubMed-3023845;
D'Ambrosio E., Waitzkin S.D., Witney F.R., Salemme A.
"Structure of the highly repeated, long interspersed or LIRn) of the rat.";
OT LIRn) of the rat.";
Mol. Cell. Biol. 6:411-424(1986).
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01-NOV-1996 (TIEMBLIEL 11, La
01-NAY-2000 (TIEMBLIEL 13, La
HYPOTHETICAL 43.7 KDA PROTEIN.
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Mammalia; Eutheria;
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                                                  InterPro; IPR000566; -
PROSITE; PS00213; LIPOCALIN; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID-10116;
Hypothetical protein.
SEQUENCE 367 AA; 4
                                                                                                             EMBL; M13100; AAA66046.1;
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        43685 MW;
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O1-FEB-1997 (
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O1-MAY-2000 (
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EMBL. AB041957; BAB19308.1;
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TT virus.
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          STRAIN-85/34;
Carlson J.O., DeMartini J.C., Mwaengo D.M.;
Carlson J.O., DeMartini J.C., Mwaengo D.M.;
Submitted (JUL-1996) to the EMBL/GenBank/DDBJ
EMBL; U64439; AAB08725.1; -.
                                                                                        MEDLINE-95135990; PubMed-7834396; Woodward T.M., Carlson J.O., la C "Biological and genetic changes " passage in isogenetic twin lambs."
                                                                                                                                                                                   Ovine lentivirus
Viruses; Retroid
                                                                                                                                                                                                           ENV
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InterPro; IPR000328;
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Envelope protein.
SEQUENCE 985 AA; 1
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                                                                                                                                                  Streptomyces coelicolor.
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Eukaryota; Metazoa; Chordata;
Mammalla; Eutherla; Rodentla;
NCBI_TaxID=10090;
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   SEQUENCE FROM N.A
                                                         Actinomycetales;
NCBI_TaxID=1902;
                                                                                                                         Bacteria; Firmicutes;
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l. Cell. Biol. 14:5950-5960(1994).
BL; X54876; CAA38657.1; -.
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rPro; IPR001007;
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R 147 1
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14; Conservative
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18; Conservative
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(TrEMBLrel. 12, Last sequence of the control of the cont
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                                                                                            Streptomycineae;
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Pred. No. 14;
7; Mismatches
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EMBL; AL049763; CAB42078.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oliver K., Harris D.,
*A set of ordered cosmids and
the 8 Mb Streptomyces coelicol
Submitted (MAY-1999) to the EM
                                                                                                                                                           Pfam;
                                                                                                                                                                                                                     J. Virol. 66:1602-1609(19
EMBL; M81861; AAA43037.1;
HSSP; P12296; IMEC.
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01-NOV-1996 (TREMBLIE1.
01-JUN-2000 (TREMBLIE1.
POLYPROTEIN, COMPLETE CI
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InterPro; IPR001205; -.
                                                                                                                                                                                                                                                            encephalomyocarditis virus RNA translation.";
                                                                                                                                                                                                                                                                       Duke G.M., Hoffman M.A., Palmenberg A.C.; "Sequence and structural elements that contribute
                                                                                                                                                                                                                                                                                               MEDLINE-92148946; PubMed-1310768;
                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=12104;
                                                                                                                                                                                                                                                                                                                                                 Cardiovirus
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                                                                                                                                                                                    InterPro;
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coelicolor A3(2) chromosome.";
to the EMBL/GenBank/DDBJ databases
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EMBL/GenBank/DDBJ databases
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01C0537888CEFC94 CRC64;
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Magnoliophyta; eudicotyledons; core eudicots;
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Toriumi M., Vysotskala V.S., Chin C., Chiou J., Choi E., Chung
Toriumi M., Vysotskala V.S., Chin C., Chiou J., Choi E., Chung
Toriumi M., Vysotskala V.S., Chin C., Chiou J., Chooks
Gonzalez A., Howng B., Liu A., Vaysberg M., Altafi H., Brooks
Buehler E., Chao O., Conn L., Conway A.B., Hansen N.F.,
Buehler E., Chao O., Conn L., Conway A.B., Miranda M., Nguyen
Johnson-Hopson C., Khan S., Kim C., Lam B., Miranda M., Nguyen
Palm C. J., Shinn P., Southwick A., Davis R.W., Ecker J.R.,
Federspiel N.A., Theologis A.,
Federspiel N.A., Theologis A.,
Theosphiel N.A., Theologis A.,
Theologis A.,
Theologis A.,
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                                                                                                                                                                                                                                                                                                                                                        Submitted
                                                                                                                                                                                                                                                                                                                                                                               STRAIN-CV.
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                    Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AC007767; AAF81325.1; SEQUENCE 95 AA; 10624 MW; OC33985771E8B54E CRC64;
                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN-CV. COLUMBIA;
                                                                                                                                                                                                                                                                                                                         STRAIN-CV
                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                    Theologis
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          01-FEB-1997 (TrEMBLrel. 02, Created)
01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
HYPOTHETICAL 54.3 KDA PROTEIN
                                                     P72844
P72844;
 SLR1306
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10; Conserv
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                                                                                                                                                                   Conservative
                                                                    PRELIMINARY;
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Pred.
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                                                                                                                                                                    ; Score 59; DB 1; pred. No. 2.4; 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL/GenBank/DDBJ
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dicots; Rosidae; eurosids II;
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                                                                                                                                                                                              Length 95;
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E., Chung M.,
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Q9XAE4
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EMBL; D90901; BAA16859.1;

Hypothetical protein.

SEQUENCE 485 AA; 54270 MW; 9C315C9CCEB03D80 CRC64;
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Bacteria; Cyanobacteria; Chroococcal.
NCBI_TaxID=1148;
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01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-NOV-1999 (TrEMBLrel. 12, Last annotation updat
HYPOTHETICAL 11.6 KDA PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-A3(2);
Seeger K.J., Harris D.;
Seeger K.J., Harris D.;
"A set of ordered cosmids and a detailed genetic and physical map
"A set of ordered cosmids and a detailed genetic and physical map
the 8 Mb Streptomyces coelicolor A3(2) chromosome.";
the 8 Mb Streptomyces coelicolor A3(2) chromosome.";
the 8 Mb Streptomyces coelicolor A3(2) chromosome.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Streptomyces coelicolor.
Bacteria; Firmicutes; Actinobacteria;
Actinomycetales; Streptomycineae; Stre
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                James K.D., Parkhill Submitted (JUN-1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-A3(2);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                              Hypothetical SEQUENCE 10
                                                                                                                                                                                                                      the 8 Mb Streptomyces coelicolor A3(2) chromosome. Mol. Microbiol. 21:77-96(1996). EMBL: AL079356; CAB45629.1;
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                                                                                                                                                                                                                                                                                                                                                                                        Redenbach M., Kieser H.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-97000351; PubMed-8843436;
                                                                                                                                                                                                                                                                                                                             "A set of ordered cosmids and a detailed genetic and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EQUENCE FROM N.A.
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             10;
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                                          Similarity
                                                                                                                                                              cal protein.
107 AA
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ο
                                                                                                                                                                               11568 MW;
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the EMBL/GenBank/DDBJ databases
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Pred. No.
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                          Mismatches
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Search completed: June 21, 2001, 08:42:25 Job time: 276 sec

# GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein . protein search, using sw model

June 21, 2001, 08:38:29 ; Search time 42:99 Seconds (without alignments) 50.767 Million cell updates/sec

Title: perfect score: Sequence: SCHNIZ-444-MODSEQ2.PEP 236 1 ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRR

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 412676 segs, 60623988 residues

Total number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

																						Database :	
22: /SIDS8/gcgdata/geneseq/geneseqp/kh2001:551	21: /SIDS8/gcgdata/geneseq/geneseqp/AA2000.DAT.*	20: /SIDS8/gcgdata/geneseq/geneseqp/AA1999.DAT.	19: /SIDS8/gcgdata/geneseg/genesegp/AA1990.DAT.	18: /SIDS8/gcgdata/geneseq/geneseqp/AA199/.DA1.	17: /SIDS8/gcgdata/geneseq/geneseqp/AA1990.DAI:	16: /SIDS8/gcgdata/geneseq/geneseqp/AA1993.DA1.	15: /SIDS8/gcgdata/geneseq/geneseqP/AA1994.DA1.	14: /SIDS8/gcgdata/geneseq/geneseq//xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	13: /SIDS8/gcgdata/geneseq/geneseqp/xxx1303	12: /SIDS8/gcgdata/geneseq/geneseqp/AALJJI.UAL.	11: /SIDS8/gcgdata/geneseg/genesegp/AA1990.DAT.*	10: /SIDS8/gcgdata/geneseg/genesegp/AA1303.DAT.*	9: /SIDS8/gcgdata/geneseq/geneseqp/AA1900.DAT:	8: /SIDS8/gcgdata/geneseq/geneseqp/AA1300/JATA	7: /SIDS8/gcgdata/geneseq/geneseqp/Anisocount	6: /SIDS8/gcgdata/geneseq/geneseqp/AA1903.DAT.	5: /SIDS8/gcgdata/geneseq/geneseqp/AA1904.pn: *	4: /SIDS8/gcgdata/geneseq/geneseqp/AAL703.VAL.*	3: /SIDS8/gcgdata/geneseq//geneseq//nnisos.him:*	2: /SIDS8/gcgdata/geneseq/geneseqp/Aniogo DAT: *	1: /SIDS8/gcgdata/genesed/genesed/introduction	: A_G	

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

10 11	9	8	7	5	υī	4	ω	^	> ⊢		Result No.	
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39.8	40.0	40.0	41.7	41.7	41.7	55.3	55.4		S	η Α	Query Match I	عو
20	, ,,	15	21	21	21	0	0	1 1	<b>7</b> 7	28	Query Match Length DB	
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AAY91797	AAY91/84	AAW66360	AAY91796	AAW663/6	AAY 24552	AAIO/144	ANI 44000	2244668	AAW66363	AAY91800 ·	ID	
Amino acid sequenc	Indolicidin analog	Amino acid sequenc	Amilio acid seguene	Cuchings Processing	Cationic pentide o	Indolicidin analog	Indolicidin fusion	Poly-(Indol (1-13)	Indolicidin analog	Amino acid sequenc	Description	

	457	19	20	36.4	86	4.5
Ancimica Object of the	AAW13802	18	15	36.4	86	44
microbia	AAY91813	21	14	36.4	86	ω W
n acid s		19	14		86	
icidin		21	13		86	
acid		21	13	36.4	86	0
o acid s	AAY245/2	19	14		86	39
licidin		Ę	13	36.4	86	ж 8
cidin analo	AAWIZOOO	. π	13	36.4	86	37
icrobi	AAYYIBSS	2	12	36.4	86	36
	AAY91/91	21	12	36.4	86	3
o acid sequen	AAY94496		12		86	34
ĕ	AAY 24 550		12	٠.	86	ω ω
idin analo	AAY Z4 G L D		12	36.4	86	32
=	AAWIZO//		12	0	86	Ճ
icrobi	AAI 91004		, L		87	30
acid s	AND 24 000		2	_	87	29
icidin	NNV3/580		. h	. ~	1	28
S	AAY91806		١,		9 4	7
icidin	AAY24582		١,		2 4	δ
o acid	AAY91811		٠ ١		2 1	Ü
icidin	AAY24583		4	_	0 1	n #
o acto	AAY91820		13		91	٠ (
actu	AAY91819		13	٠.	9 1	ŭ,
acto	AAY91818		13		91	3 :
acid	AAY91774		μı W		9 1	<u>ئ</u> د
acid	AAY91773		1 6	30. D	91	5 6
urpro	AAY92795		<u>.</u> ;		2 4	à
peptide de	AAY94495		ا بـ ا		0 1	> `
ic peptine	AAW71690		13		9 }	<b>1</b> c
	AAW66378		13		91	י נ
OTD GUGTO	460		13		0 1	n #
Ω	128		13		ı.	<b>&gt;</b> (
٠	Y9179		21		р ( , и , п	n v
icidin	AAY24554		21 .		ı.	ى

#### ALIGNMENTS

AAY91800 RESULT AAY91800 standard; Peptide; 28 AA. AAY91800; Amino acid sequence of cationic peptide MBI 11B20CN. 06-JUN-2000 (first entry)

Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; multidrug resistance.

XX PD XX Synthetic.

WO9965506-A2

23-DEC-1999. 99WO-CA00552.

14-JUN-1999; 12-JUN-1998; 98US-0096541.

(MICR-) MICROLOGIX BIOTECH INC.

Friedland HD, Krieger TJ, Taylor R, Erfle D, Fraser JR, West MHP;

WPI; 2000-223549/19.

Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours

밁 Ş

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RESULT
AAW66363
Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                 25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically the pharmaceutical composition can be used to treat tumours, specifically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bos taurus.
Synthetic
                    The present sequence represents an indolicidin analogue. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cervix, uterus, skin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                          New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                                                                                                            17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indolicidin analogue; resistance; bacterial infection; tolerance; au bacteria; fungus; parasite; virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW66363;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW66363 standard;
                                                                                                                                             Claim 1; Page 91; 105pp; English.
                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                       Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                               10-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9840401-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin
                                                                                                                                                                                                                                                                                                    (MICR-) MICROLOGIX BIOTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ymphoma,
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                                                                                                                                                                                                                                          1998-520800/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            leukaemia, multiple myeloma, or
terus, skin, prostate, liver and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28. AA;
                                                                                                                                                                                                                                                                       McNicol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 analogue
        provide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15;
                                                                                                                                                                                                                                                                                                                                 98US-0030619.
97US-0040649.
97US-0915314.
97US-0060099.
                                                                                                                                                                                                                                                                                                                                                                                                               98WO-CA00190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      parasite; virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide;
                                                                                                                                                                                                                                                                        , Ľď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                resistance; cationic peptide; antibiotic; tolerance; antibacterial; microorganism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MBI 11B20
        synergistic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          prostate,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                                                                                                                                        West MHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --ilmrwpwwpwrrk 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cationic peptide amino acid sequence, which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 152.5; DB 21
Pred. No. 6.3e-13;
1; Mismatches 1;
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         activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tumours of breast, lung, ovary, colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21;
                                                                                                                                                                                           e.g. enhancing acquired resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
           microorganism that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28;
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     is tolerant, inherently antibiotic agent. They caparasites and viruses.
                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
Bos sp.
                                                                                                                                                                                                                                                                                                                                                                                                          Crosslinked indolicidin analog; x-indolicidin; poly-Indol 1-13; stability; bovine neutrophil; antimicrobial; antibacterial; fungicid; protozoacide; virucide; anti-numan immunodeficiency virus-1; HIV-1; gram positive bacteria; gram negative; Staphylococcus aureus; Escherichia coli; Salmonella typhimurium; yeast; fungi; protozoa; Candida ablicans; Cryptococcus neoformans; Glardia; Acanthamoeba;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Poly-(Indol
                                                                                                                                                                                                                                        Cleavage-site
                                                                                                                                                                                                                                                           Cleavage-site
                                                                                                                                                                                                                                                                             Cleavage-site
                                                                                                                                                                                                                                                                                                 Cleavage-site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY44668 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                Cleavage-site
                                                                                                                                                                                                                   Cleavage-site
                                                                                                                                                                                                                                                                                                                                                  Key
                                                                                                                                                                                                                                                                                                                                                                                                  hexapeptide
                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                         Region
                                                18-JUN-1998;
                                                                    20-MAY-1999;
                                                                                       23-DEC-1999
                                                                                                          WO9965510-A1
                                                                                                                                      Region
                                                                                                                                                          Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
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                                                                                                                                                                                                                                                                                                                                                                                                   spacer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1-13)-Met-Ala-Arg-Ile-Ala-Met)3 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                                                             /label-
39..40
/label-
                                                 9805-0099631
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20..21
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20..25
                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
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                                                                                                                                                                                                         label-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  registant,
can be used
                                                                                                                                                                                                          Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                 Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                     Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                       Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                                                                Enterokinase_recognition_site
                                                                                                                              Hexapeptide_spacer
                                                                                                                                                  Hexapeptide_spacer
                                                                                                                                                                                       Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                              Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                                            Enterokinase_cleavage_site
                                                                                                                                                                     Hexapeptide_spacer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 148.5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or has acquired resistance for killing e.g. bacteria,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.9e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      fungicide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to an fungi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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Selsted (REGC ) UNIV

ME,

CALIFORNIA

WPI; 2000-147133/13.

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RESULT
AAY57142
ID AAYS
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Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      which is a naturally occurring peptide isolated from bowine neutrophils and has antimicrobial activity. The crosslinked indolicidin (Indol 1-13) (X-indolicidin) analogs are stable and have antimicrobial activity against gram positive and negative bacteria (e.g. Staphylococcus aureus, Escherichia coli and Salmonella typhimurium), yeasts and fungi (e.g. Escherichia coli and Salmonella typhimurium), yeasts and fungi (e.g. Escherichia coli and Salmonella typhimurium), yeasts and fungi (e.g. Staphylococcus neoformans), protozoa (e.g. Giardia species and Acanthamoeba species), and viruses (e.g. HIV-1).

They can be used for reducing or inhibiting the growth or survival of microorganisms in an environment e.g. a food or food product, a microorganisms in an environment e.g. a food or food product, a microorganisms in an environment e.g. as food or food product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     solution, an inanimate object comprising a surface, or a mammal.

The present sequence is a protein comprising three copies of Indol 1-13 each separated by a hexapeptide spacer sequence. A recombinant construct encoding this sequence was used for the expression of Indol-homoserine (Hse) analog. The ability of expression of Indol-homoserine in sufficient provides a means to Indol-Hse analog to maintain antimicrobial activity provides a means to produce X-indolicidin analog precursors in sufficient quantities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 1C; Fig 1; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Crosslinked indolicidin analogs with antimicrobial activity against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AA249764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bacteria, yeast, fungi, protozoa and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY57142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY57142 standard; Protein; 63 AA
                                                                                                                                                                                                                                                                                                                                                                   Indolicidin analogue; antimicrobial activity; helminth; bacteria; virus;
treatment; inhibit growth; micro-organism; contact lens solution;
transgenic plant; surgical instrument; yeast; fungi; protozoa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                       Indolicidin
                                                                                                                                                                                                                                                                                                        WO9958141-A1
                                                                                                                                                                                                   12-MAY-1998;
                                                                                                                                                                                                                                      05-MAY-1999;
                                                                                                                                                                                                                                                                    18-NOV-1999
                               New indolicidin analogues, active against bacteria, yeast, protozoa and virus, used for, e.g. treating infections
                                                                               WPI; 2000-053028/04.
N-PSDB; AAZ45123.
                                                                                                                                  Selsted ME
 Disclosure;
                                                                                                                                                                    (REGC ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 kwpwwpwrrm----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 RWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
 Fig 6; 62pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                        CALIFORNIA.
                                                                                                                                                                                                     98US-0076227
                                                                                                                                                                                                                                      99WO-US09942.
                                                                                                                                                                                                                                                                                                                                                                                                                                          peptide amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -ariamilpwkwpwwpwrr 38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 130.5; DB 2
Pred. No. 9.2e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11111111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
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analogues, which have a homoserine residue and/or a truncated amino terminal region. The analogues have the following amino acid sequence: xaa1-Xaa2-Xaa3-Xaa4-Xaa5-Xaa6-Pro-Xaa6-Pro-Xaa6-Pro-Xaa6-Xaa7-Xaa7-Xaa8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This is the amino acid sequence of an example of a fusion protein consists of an indolicidin analogue linked to another peptide. Peptides AAX57109-Y57138 and AAY57143-Y57144 are new indolicidin
                                                                                                                                                                                                                                                                                 yaa9 = at least one amino acid;
provided that if xaa1 is present, xaa8 = Hse, Met or Met-xaa9.Met;
provided that if xaa1 is present, xaa1 is absent; if xaa3 is and further provided that: if xaa2 is absent, xaa1 is absent; if xaa4 is absent, xaa1, xaa2 and xaa3 absent, xaa1 and xaa2 are absent; if xaa4 is absent, xaa3 and xaa4 are absent, are absent; and if xaa5 is absent, xaa1, xaa2, xaa3 and xaa4 are absent are absent; and if xaa5 is absent, xaa1, xaa2, xaa3 and xaa4 are absent on a indicidin are indicidin analogues can be used to create a fusion polypeptide on indicidin analogues have antimicrobial activity against gram positive bacteria, analogues have antimicrobial activity against gram positive bacteria, yeast, fungus, protozoa and viruses (e.g. HIV-1). They are also active against helminths. The analogues can be used for reating infections. They can also be included in a liquid such used for treating infections. They can also be included in a liquid such used for treating infections. They can also be included in a liquid such used for treating infections. They can also be included in a liquid such used for treating infections. They can also be included in a liquid such used for treating infections. They can be contact lens solution. The
                                                                                                                                       as water or an aqueous solution, e.g. contact lens solution. The analogues have potential uses in food products, and in objects such as the surface of an instrument used to prepare food or to perform surgery. Transgenic plants or animals useful in the food industry can be produced by introducing a nucleic acid molecule encoding an indolicidin analogue into the germline cells of such organisms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xaa6 =
Xaa7 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         xaa2 = Ile, Leu, Val,
xaa3 = Pro or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xaal = Ile, Leu, Val,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Where:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Xaa5 =
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        хаа8 =
                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arg, Lys or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Trp or Phe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Trp, Phe or absent;
Arg, Lys or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               at least one amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      homoserine (Hse), Met,
     Similarity
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val, Ala,
       55.3%;
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Gly
          Score 130.5;
Pred. No. 9.
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                 2e-10;
                                        DB 21;
                                          Length
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AAY24552
ID AAY2
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RESULT
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Best Local S
Matches 21
                                                                                                                               Indolicidin; bacterial infection; photo-oxidised solubiliser;
antimicrobial; antibiotic; antiarrythmic; surface disinfectant;
additive; shampoo; soap; insecticide; herbicide; preservative;
                                                                                                                       additive; shampoo; soap;
food; technical material.
                                                                                                                                                                          Indolicidin analogue #4.
                                                                                                                                                                                               18-AUG-1999
                                                                                                                                                                                                                                     AAY24552 standard;
                                                                                                   Synthetic.
                                                                                WO9807745-A2
                                                                                                                                                                                                                                                                                     11 kwpwwpwrrm----ariamilpwkwpwwpwrr 38
                                                                                                                                                                                                                                                                                                         3 RWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR 35
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                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                        peptide;
                                                                                                                                                                                                                                          21
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13-JAN-1997; 21-AUG-1996; 21-AUG-1997; 26-FEB-1998

97US-0034949 96US-0024754 97WO-US14779

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RESULT
AAW66376
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are may be used therapeutically or to coat medical devices; also they are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 11; Page 88; 129pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MICR-) MICROLOGIX BIOTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or topically, generally at spectrum of activity than i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             useful as surface disinfectants, as additives to shampoo or soaps, as useful as surface disinfectants, as additives for foods and technical insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader
 25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
                                                                                                                                                                                                                                                                              Cationic peptide of claim 15 #3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          reduces
                                                                                                                                                                                                          Indolicidin analogue; resistance; cationic peptide; antibiotic;
bacterial infection; tolerance; antibacterial; microorganism;
bacteria; fungus; parasite; virus.
                                                                                                                                                                                                                                                                                                                  12-JAN-1999
                                                                                                                                                                                                                                                                                                                                                       AAW66376
                                                                                                                                                                                                                                                                                                                                                                                        AAW66376 standard; peptide;
                                                                                                                                            WO9840401-A2
                                                                                                           17-SEP-1998
                                                                         10-MAR-1998;
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     98US-0030619.
97US-0040649.
97US-0915314.
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                                                                                                                                                                                                                                                                                                                      entry 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English
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Pred. No. 3
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RESULT
AAY91796
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   from the present invention. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity act
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New indolicidin peptide analogues - useful for, e.g. enhancing activity of antibiotic or overcoming tolerance, acquired resistance or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cationic peptide; tumour; pharmaceutical composition; leukaemia; polyoxyalkylene-modified; APO; lymphoma; mu breast; lung; ovary; cervix; uterus; skin; prostate; l
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY91796 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Amino acid sequence of cationic peptide MBI 11B16CN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY91796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    multidrug resistance.
                                                                                                                                                                                                                                                                                                                       23-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                           WO9965506-A2
                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                           12-JUN-1998;
                                                                                                                                                                                                                                                                         14-JUN-1999;
                                                                            WPI; 2000-223549/19.
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                                                                                                                                                                             MICROLOGIX BIOTECH INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            McNicol
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fungi, parasites and viruses.
                                                                                                                               Krieger
                                                                                                                                                                                                                              98US-0096541.
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                                                                                                                                    Taylor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 98.5; DB pred. No. 3e-06;
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                 optionally activated useful for treating '
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  multiple myeloma;
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                                                                                                                                               West
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                            tumours
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RESULT
AAW66360
ID AAW6
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AC AAW6
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XX
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SXCCCCCCCXX
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Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                            25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
The present sequence represents an indolicidin analogue. The present invention describes compositions and methods for treating infection, especially bacterial infections and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The
                                                                                                                                                                                   New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW66360;
                                                                                                                                                         Claim 1; Page
                                                                                                                                                                                                                                                                                   Fraser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9840401-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bacteria; fungus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indolicidin analogue MBI 11A9.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW66360 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ov cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure;
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                                                                                                                                                                                                                                                                                  JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
18; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               analogue;
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                                                                                                                                                       91; 105pp; English.
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97US-0040649.
97US-0915314.
97US-0060099.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  parasite; virus.
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tolerance; antibacterial; microorganism;
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                                                                                                                                                                                                                                                                                  West MHP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English
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acquired resistance
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Best Local Similarity 41.7
Matches 15; Conservative
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Best Local
                                                                                                                                                       can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically
                                                                                                                                                                                                                                                                                           Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cationic peptide; tumour; pharmaceutical composition; cancer; treatme leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antibiotic agent. They parasites and viruses.
                                                                                                          Sequence
                                                                                                                                  cervix, uterus, skin,
                                                                                                                                                                                                                                 This sequence represents a cationic peptide amino acid sequence,
                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                         Friedland
                                                                                                                                                                                                                                                                                                                                                                                                         12-JUN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              multidrug resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           leukaemia; po.
breast; lung;
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                                                                                                                                                                                                                                                                                                                                                                                 (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                 ymphoma, leukaemia, multiple myeloma, or tumours of breast, ervix, uterus, skin, prostate, liver and colon.
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                        1 ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
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                                                15; Conser
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                                                                                                                                                                                                                                                       Page 14; 94pp;
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treating 1
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                                                                                                                                              lung, ovary,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antimicrobial; antibiotic; antiarrythm additive; shampoo; soap; insecticide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indolicidin;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                                                                                                                                             fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds may derived from the analogués may be used similarly; the compounds may derived from antibictics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as useful as surface disinfectants, as additives to shampoo or soaps, as useful as surface disinfectants, as additives to shampoo or soaps, as useful as surface disinfectants, as additives to shampoo or soaps, as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXB (III), BXZXXZXBBAn(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nM (III), BBBXZXXZXBB (III), EXZXXZXBBBA (VIII) and BBXZXXZXBBB (VIII).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1998-169090/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Where Z = P or V; X = hydrophobic residue, preferably W; B = basic preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = in (VIII) at least 2 X = F or Y. The analogues are used to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 11; Page 88; 129pp; English.
                                                                                                                                                                                                                     insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolloidin and modification as compounds
                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nfections caused by bacteria (Gram positive or negative, or anaerobic);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               technical material.
                                  ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                       17; Conserv
                                                                                                                                                                                                           their toxicity.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry
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96US-0024754.
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                                                                                               39.8%;
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Pred. No. 1e-05;
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Matches 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      multidrug resistance.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                        This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with ApO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Friedland HD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 15;
                                                                                                                                                                                                                                                                                                                               Sequence
Indolicidin; bacterial infection; photo-oxidised solubiliser;
antimicrobial; antibiotic; antiarrythmic; surface disinfectan
                                        Indolicidin analogue #6.
                                                                     18-AUG-1999
                                                                                                 AAY24554;
                                                                                                                            AAY24554 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Krieger TJ, Taylor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-CA00552.
                                                                                                                               peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94pp; English.
                                                                                                                                                                                                                                                                            39.8%;
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                                                                                                                                                                                                                                                                            Score 94;
Pred. No.
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                                                                                                                                                                                                                                                                  Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Erfle
                                                                                                                                                                                                                                                                                 DB 21
1e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            composition; cancer; treatme; lymphoma; multiple myeloma;
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                                                                                                                                                                                                                                                                                               21;
        surface disinfectant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         optionally useful for
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                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                 Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fraser
                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cancer; treatment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            activated treating t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JR,
                                                                                                                                                                                                                                                                        10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, complete the preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1\mbox{-}50\mbox{ mg/kg}. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New indolicidin analogues with antimicrobial activity and relate nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-JAN-1997;
21-AUG-1996;
Cationic peptide;
                                                           Amino acid sequence of cationic peptide MBI 11B18CN.
                                                                                                                      06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 11; Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1998-169090/15
                                                                                                                                                                                                                                         AAY91798 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             reduces their toxicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (I)-(VIII) contai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MICR-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-AUG-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            additive; shampoo; soap; insecticide; herbicide; preservative;
food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                         1 ilrwpwwpwrrkd-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LBBnX2nXX2nXRK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to AAY24615 represent indolicidin analogues of formulae I) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXBBC(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nMILBBAGS (IV), BXZXXZXBBC(AA)nMILBBAGS (IV), BXZXXZXBBC(AA)nMILBBAGS (IV), BXZXXXXXBBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBAGS (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXBC(AA)nMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXXXXXBC(AA)NMILBBACC (IV), BXZXXX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 AA;
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                                                                                                                   (first
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96US-0024754.
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tumour; pharmaceutical composition; cancer;
                                                                                                                entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 93.5; DB 19;
Pred. No. 1.3e-05;
0; Mismatches 1;
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ies, also
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   treatment;
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AAW12873
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Best Local Similarity 63.6
Matches 17; Conservative
                                                                                                                                            bacterium;
antiviral;
Shigella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour
                                                                                                                   Synthetic
                                                                                                                                                          Bacterial; viral; antitumour; food; preservative; inhibitor; growth; bacterium; yeast; endotoxaemia; sepsis; antibiotic; fungal; antiviral; Candida albicans; sterilant; Salmonella; Yersina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma;
breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                              AAW12873 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    multidrug resistance
                                    23-AUG-1996;
                                                               06-MAR-1997.
                                                                                         W09708199-A2
                                                                                                                                                                                                                Antimicrobial
                                                                                                                                                                                                                                            10-DEC-1997
                                                                                                                                                                                                                                                                     AAW12873;
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                                                                                                                                                                                                                                                                                                                                                                1 ilrwpwwpwrrkd-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence represents a cationic peptide amino acid sequence,
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                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA;
                                                                                                                                                                                                                cationic peptide
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                                    96WO-IB00996
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                                                                                                                                                                                                                                                                                              peptide; 13
                                                                                                                                                                                                                                                                                                                                                                                                                                   39.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94pp; English.
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Pred. No. 1
                                                                                                                                                                                                                 CP-11.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  21;
                                                                                                                                                                                                                                                                                                                                                                                                                       9;
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(UYBR-) UNIV BRITISH COLUMBIA.

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RESULT 1
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YEAR ON SERVICE OF THE SERVICE OF TH
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cationic peptide(s) having anti-microbial activity - used for the inhibition of bacterial and viral growth, as an antitumour agent,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence) is selected from: x1x1Prox2x3x2Pro(x2x2Pro)nx2x3(x5)o; x1x1Prox2x3x4(x5)rProx2x3x3; x1x1x3(ProTrp)ux3x2x5x2x2x5x2(x5)o;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence represents a specifically claimed novel isolat cationic peptide which has antimicrobial activity. The amino acid sequence of antimicrobial cationic peptides (including the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and as a food preservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indolicidin; bacterial infection; photo-oxidised solubiliser;
antimicrobial; antibiotic; antiarrythmic; surface disinfectant;
additive; shampoo; soap; insecticide; herbicide; preservative;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY24609;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY24609 standard;
                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin analogue #61.
                                                             21-AUG-1997;
                                                                                                                                                     26-FEB-1998
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technical material.
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CC (1)-(VIII) containing up to 25 amino acids (aa): RXZXXXXB (1), BXZXXXXB (1), BXZXXXXBB (1), BXZXXXXBB (1), BXZXXXXBB (1), BXZXXXXBB (1), BXZXXXXBB (1), CC (1), BABXZXXXXXXXB (VI), LKAXXXXXXBRK (VI) and BXZXXXXXBB (VIII).

CC (V), LBBAXZXXXXXX (VI), LKAXXXXXXRKK (VI) and BXZXXXXXBB (VIII).

CC (V), LBBAXZXXXXXX (VI), LKAXXXXXXRKK (VI) and BXZXXXXBBB (VIII).

CC (V), LBBAXZXXXXXX (VI), LKAXXXXXXRKK (VI) and BXZXXXXXBBB (VIII).

CC (V), LBBAXZXXXXX (VI), LKAXXXXXXRKK (VII) and BXZXXXXXBB (VIII).

CC (V), LBBAXZXXXXX (VI), LKAXXXXXXRKK (VII) and BXZXXXXXBB (VIII).

CC (V), LBBAXZXXXXX (VI), LKAXXXXXXRKK (VII) and BXZXXXXXBB (VIII).

CC (V), LBBAXZXXXXX (VI), LKAXXXXXX (VI) and BXXXXXXXBB (VIII).

CC (V), LBBAXZXXXXX (VI), BXZXXXXBB (VIII), BXXXXXXBB (VIII).

CC (V), LBBAXZXXXXXB (VI), BXXXXXXBB (VIII).

CC (V), LBBAXZXXXXXX (VI), LKAXXXXXXBB (VIII), BXXXXXXBB (VIII).

CC (V), LBBAXZXXXXXB (VI), BXXXXXXBB (VIII), BXXXXXXBB (VIII).

CC (V), LBBAXZXXXXB (VI), BXXXXXXBB (VIII), BXXXXXXBB (VIII).

CC (V), LBBAXZXXXXXB (VII), BXXXXXXBB (VIII), BXXXXXXBB (VIII).

CC (V), LBBAXZXXXXB (VII), BXXXXXXBB (VIII), BXXXXXXBB (VIII).

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CC (V), LBBAXZXXXBB (VIII).

CC (V), LBBAXZXXXXBB (VII), BXXXXXXBB (VIII).

CC (V), LBBAXZXXXXBB (VIII).

CC (V), LBBAXZXXXXB (VII), BXXXXXXB (VIII).

CC (V), LBBAXZXXXBB (VIIII).

CC (V), LBBAXZXXXBB (VIII).

CC (V), LBBAXZXXXBB (VIII).

CC (V), LBBAXZXXXBB (VII
                                                                                                   useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/Kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-JAN-1997;
21-AUG-1996;
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Search completed: June 21, Job time: 266 sec 2001, 08:38:29

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13

Query Match Best Local S Matches 13

Similarity

38.6%; Score 91; DB 19; 100.0%; Pred. No. 1.5e-05; tive 0; Mismatches 0;

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41.7%; Score 98. nilarity 66.7%; Pred. No. Conservative 0; Mismat	US-08-915-314-46  US-08-915-314-46  Sequence 46, Application US/08915314  Patent No. 6180604  GENERAL INFORMATION: APPLICANT: Fraser, Janet R. APPLICANT: West, Michael H.P. APPLICANT: Taylor, Robert APPLICANT: SEQUENCES: 90 CORRESSONDENCE ADDRESS: ADDRESSEE: SEED and BERRY LLP STREET: 6300 Columbia Center, 701 Fi CITY: Seattle STREET: Mashington COUNTRY: USA ZIP: 98104  COMPUTER READABLE FORM: MEDIUM TYDE: Floppy disk COMPUTER READABLE FORM: MEDIUM TYDE: Floppy disk COMPUTER: DBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Ver APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997 CURRENT APPLICATION DATA: APPLICATION NUMBER: 39,317 REFERENCE/DOCKET NUMBER: 39,317 REFERENCE/DOCKET NUMBER: 39,317 REFERENCE/DOCKET NUMBER: 660081.405 TELEFONNUICATION INFORMATION: TELEFAX: (206) 622-4900 TOPOLOGY: 1100000000000000000000000000000000000	28 83.5 35.4 16 4 US-08-702-0 29 83 35.2 12 4 US-08-915-3 30 83 35.2 13 4 US-08-915-3 31 83 35.2 13 4 US-08-915-3 32 83 35.2 13 4 US-08-915-3 33 83 35.2 13 4 US-08-702-0 34 83 35.2 13 4 US-08-702-0 35 83 35.2 13 4 US-08-702-0 36 82 34.7 12 4 US-08-915-3 37 82 34.7 12 4 US-08-915-3 38 82 34.7 13 4 US-08-915-3 39 82 34.7 13 4 US-08-915-3 40 82 34.7 13 4 US-08-915-3 41 81 34.3 12 4 US-08-915-3 42 81 34.3 12 4 US-08-915-3 43 81 34.3 12 4 US-08-915-3 44 81 34.3 12 4 US-08-915-3 45 80 33.9 12 4 US-08-915-3 46 81 34.3 12 4 US-08-915-3 47 81 34.3 12 4 US-08-915-3 48 81 34.3 12 4 US-08-915-3 49 81 34.3 12 4 US-08-915-3 40 81 34.3 12 4 US-08-915-3 41 81 34.3 12 4 US-08-915-3 42 81 34.3 12 4 US-08-915-3 43 81 34.3 12 4 US-08-915-3
7%; Score 98.5; DB 4; Length 21; 7%; Pred. No. 1.3e-06; 0; Mismatches 0; Indels 9	5314  J.  J.  LLP er, 701 Fifth Avenue es.+1.0, Version #1.30  915,314  701.0, Carol 71.0, Carol	US-08-702-054B-38 Sequen US-08-915-314-24 Sequen US-08-915-314-40 Sequen US-08-915-314-49 Sequen US-08-915-314-50 Sequen US-08-702-054B-31 Sequen US-08-702-054B-31 Sequen US-08-915-314-76 Sequen US-08-915-314-67 Sequen US-08-915-314-67 Sequen US-08-915-314-75 Sequen US-08-915-314-75 Sequen US-08-915-314-75 Sequen US-08-915-314-75 Sequen US-08-915-314-75 Sequen US-08-915-314-76 Sequen US-08-915-314-77 Sequen US-08-915-314-87 Sequen US-08-915-314-87 Sequen US-08-915-314-87 Sequen US-08-915-314-87 Sequen US-08-915-314-87 Sequen US-08-915-314-87 Sequen US-08-915-314-78 Sequen
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                                                                                                                                                                                             Sequence 48,
                                                                                                                                                                            Patent No.
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                                                                                                                                                           GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN NUMBER OF SEQUENCES: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: NO. 6180604 tenburg Ph.D., Carol REGISTRATION NUMBER: 39,317 REFERENCE/DOCKET NUMBER: 660081.405 TELECOMMUNICATION INFORMATION:
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                                                                              APPLICANT:
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                                              TITLE OF INVENTION:
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                              NUMBER OF SEQUENCES:
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                                                                            Krieger, Timothy J.
Taylor, Robert
Erfle, Douglas
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SEED and BERRY LLP
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                                               COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/915,314
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NAME: NO. 6180604tenburg ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
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            APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                  COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: PC-DOS/MS-DOS

OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                        PPLICANT: Erfle, Douglas
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                                                                                                                                                                                                                                                                            CITY: Seattle
STATE: Washington
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                                                                                                                                                                                                                                                           COUNTRY:
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6300 Columbia Center, 701 Fifth Avenue
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Taylor, Robert
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                                                                                                                                                                                                                                                                                                                                                                                    CÓMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Janet R
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Pred. No. 5
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US-08-915-314-62
US-08-915-314-62
US-08-915-314-62
US-08-915-314-62
                   Query Match
Best Local Similarity
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                                                                           -08-915-314-62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
TITLE OF INVENTION: INFECTIONS AND ME
TITLE OF INVENTION: INFECTIONS USING AN
                                                                                                                                                                                                           TELEFAX: (206) 682-60
NFORMATION FOR SEQ ID NO:
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                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
                                                                                                                                                                                                                                 TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604 tenburg ph.D., Carol
NAME: NO. 10004 tenburg ph.D., Carol
NAME: 39,317
                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPOTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
                                                                                                                               FEATURE:
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                                                                    NAME/KEY: Modified-site
LOCATION: 1
OTHER INFORMATION: /note= "D-Form of Isoleucine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
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                                                                                                                                         STRANDEDNESS:
TOPOLOGY: linear
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                                                                                                                                                                 TYPE: amino acid
                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE:
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              38.6%; Score 91;
100.0%; Pred. No.
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100.0%; Pr
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            DB 4; L, 7.1e-06;
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7.1e-06;
                       Length 13
Indels
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Best Local Similarity
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                                     GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY:
LOCATION:
                            APPLICANT:
    APPLICANT:
                  APPLICANT:
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APPLICANT:
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ZIP: 98104
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Sequence 64, Application US/08915314 Patent No. 6180604
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                   OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
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                               Fraser, Janet R.
West, Michael H.P.
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Krieger, Timothy J
Taylor, Robert
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6300 Columbia Center, 701 Fifth Avenue
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West, Michael H.P.
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63:
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, OTHER INFORMATION: /note= "D-Form of Lysine" US-08-915-314-64
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TELEPHONE: (206) 622-4900
TELEFAX: (206) 882-6031
INFORMATION FOR SEQ ID NO: 64:
SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
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Best Local Similarity
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                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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MEDIUM TYPE: Floppy
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NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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STREET: Seattle
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Palania
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                                                                                                                                                                                                                                                                             ent No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE: 20-AUCCLASSIFICATION: 42
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                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                            NUMBER OF SEQUENCES:
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OTHER INFORMATION:
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                                                                                                                                                                            PPLICANT: Taylor, Robert PPLICANT: Erfle, Douglas
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                                                                                                                                           TILE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TILE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
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OMPUTER READABLE FORM:
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                                                                                             DDRESSEE:
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                                                                 Seattle
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                                            Washington
                                                                           E: SEED and BERRY LLP 6300 Columbia Center, 701 Fifth Avenue
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Taylor, Robert
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TOPOLOGY: US-08-915-314-57
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Best Local :
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Patent No. 618060
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 14 amino acids
        INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (206) 622-4900
                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 20-AUC
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                                                                                                                                                                                                                                                                                                                                                                                                             UMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                          TILE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING THE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ILKKWPWWPWRRK 13
                                                                                                                                                 APPLICATION NUMBER: US/0 FILING DATE: 20-AUG-1997 CLASSIFICATION: 424
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                                                                                                                                                                                                                                                                                                 ZIP: 98104
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Taylor, Robert
Erfle, Douglas
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21 amino acids
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                    701 Fifth Avenue
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no. 7.7e-06;
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US-08-915-314-42; Sequence 42, Application US/08915314; Patent No. 6180604
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US-08-915-314-52
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                                                         RESULT
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US-08-915-314-52
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Best Local Similarity
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Best Local (
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                              TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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APPLICANT: Taylor, Robert
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                 25 LKKWPWWPWRRK 36
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                                                                                                                                                                                                                                                                       STRANDEDNESS
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REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
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                                                                                                                                                                                                                                                                                                12 amino acids
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100.0%;
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Pred. No.
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Pred. No.
                                                                                                                                                               Mismatches
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 61806044tenburg Ph.D., Carol
NAME: NO. 61806044tenburg Ph.D., Carol
                                                                                                                                                                                    NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                         TITLE OF INVENTION:
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center,
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                                                                                                                                  CITY: Seattle
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                                                                                           COUNTRY: USA
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                                                                                                                                                                    ADDRESSEE:
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Taylor, Robert
Erfle, Douglas
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Taylor, Robert
Erfle, Douglas
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36.4%; Score 86; DB 4; L
100.0%; Pred. No. 2.8e-05;
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Query Match Best Local Similarity Matches 12; Conser

Conservative

Mismatches

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Length 12; Indels

24 ILKKWPWWPWRR 35

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US-08-702-054B-5
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Best Local Similarity
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LENGTH: 12 amino acids
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MEDIUM TYPE: Diskette
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                                                                                                                                                                                  APPLICATION NUMBER: 60/002,687
FILING DATE: 23-AUG-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: 619/678-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 ILKKWPWWPWRR 12
                                                                                                                                            NAME: Haile, Lisa A. REGISTRATION NUMBER: 38,347 REFERENCE/DOCKET NUMBER: 07420/013001
                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM:
                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/702,054B
FILING DATE: 23-AUG-1996
LECULE TYPE:
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92037
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4225 Executive Square, Suite 1400
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Gough, Monisha
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Hancock, Robert E. W.
                                                                                                   619/678-5099
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FastSEQ for Windows Version 2.0b
                                                        12 amino acids
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                                                                                US-08-915-314-58
                                                                                                                                                                                         Best Local Similarity
Matches 13; Conserv
                                                                                                                                                                                                                   Query Match
                                                Sequence 58, Apr-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (206) 682-60
NEORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: Wart.
                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TILE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2
                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
             APPLICANT:
                                                                                                                                                                                                                                                                                         TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
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                                                                                                                                       1 WW----
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                                          INFORMATION:
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Krieger, Timothy J.
Taylor, Robert
Erfle, Douglas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                         13 amino acids
                                                                 Application US/08915314
                                                                                                                                                                                                                                                                                   linear
Fraser, Janet R.
West, Michael H.P.
Krieger, Timothy J
                                                                                                                                                                                                                                                                                                                                                                                  (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                     682-6031
                                                                                                                                                                                                               36.48;
                                                                                                                                              KKWPWWPWRRK 13
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 Mismatches

                                                                                                                                                                                                                Score 86; DB 4;
Pred. No. 3e-05;
                                                                                                                                                                                                                                     Length 13;
                                                                                                                                                                                                            Indels
                                                                                                                                                                                                               18;
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APPLICANT: Erfle Douglas
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
NUMBER OF SEQUENCES: 90
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
CITY: Seattle
STATE: Washington
COUNTRY: USA
ZIP: 98104
COMPUTER READDABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US-DOS/MS-DOS
SOFTWARE: PATENTION NUMBER: US-DOS/MS-DOS
CURRENT APPLICATION NUMBER: US-DOS/MS-DOS
PLICATION SYSTEM: PC-DOS/MS-DOS
SOFTWARE: No. 6180604tenburg Ph.D., Carol
NAME: No. 6180604tenburg Ph.D., Carol
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 560081.405
TELEPHONE: (206) 622-4900
TELEPHONE: (206) 622-4900
TELEPHORE: 13 amino acids
TYPE: anino acids
TYPE: anino acids
TYPE: anino acids
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STRANDEDNESS:
TOPOLOGY: linear
US-08-915-314-58
                                                                                                                Query Match
Best Local Similarity 100
Matches 12; Conservative
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24 ILKKWPWWPWRR 35
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1 ILKKWPWWPWRR 12
                                                                                                                      36.4%; Score 86; DB 4; Length 13;
100.0%; pred. No. 3e-05;
vative 0; Mismatches 0; Indels
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В

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OM protein - protein search, using sw model
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Maximum Match 100%
Listing first 45 summaries
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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seq length: 2000000000
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236
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 4.5 Copyright (c) 1993 - 2000. Compugen Ltd
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ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pir1:*
pir2:*
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469
1173
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probable cysS prot
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peplomeric polypro	hypothetical prote	hypothetical prote	nypothetical pioto	nypotherical prote	propagae onega o a	nypochecical proce	probable excitation	a classic extension of the	Capara renorting AT	general polymore in	genome polyprotein	glycine cleavage s

### ALIGNMENTS

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Indolicidin precursor - bovine
N;Alternate names: antimicrobial peptide
C;Species: Bos primigenius taurus (cattle)
C;Species: Bos primigenius taurus (rottle)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: JC1222; A42387; S25664
R;del Sal, G; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M.
R;del Sal, G; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M.
Biochem. Biophys. Res. Commun. 187, 467-472, 1992
Biochem. Biophys. Res. Commun. 187, 467-472, 1992
A;Reference number: JC1222; MUID:92392368
A;Accession: JC1222; MUID:92392368
                                                                                                                                                                                                                                                                                            A: Experimental source: neutrophils
A: Experimental source: neutrophils
A; Note: sequence extracted from NCBI backbone (NCBIP:83840)
A; Note: sequence extracted from NCBI backbone (NCBIP:83840)
A; Note: sequence extracted homology
C: Seywords: amidated carboxyl end
F: 129/Domain: signal sequence #status predicted <SIG>F: 22-129/Domain: cystatin homology <CYS>F: 30-130/Domain: propeptide #status predicted <PRO>F: 30-130/Domain: propeptide #status experimental <MAT>F: 131-143/Product: indolicidin #status experimental <MAT>F: 143/Modified site: amidated carboxyl end (Arg) (amide in F)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Experimental source: bone marrow R;Selsted, M.E.; Novotny, M.J.; Morris, W.L.; Tang, Y.Q.; Smith, W.; Cullor, J.S. J. Biol. Chem. 267, 4292-4295, 1992
A;Title: Indolicidin, a novel bactericidal tridecapeptide amide from neutrophils. A;Reference number: A42387; MUID:92165771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-144 <SAL>
A; Cross-references: EMBL: X67340; NID: 9462; PIDN: CAA47755.1; PID: 9463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: protein A; Residues: 131-143 <SEL>
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   B
                                                                                                                                Query Match
Best Local Similarity
Matches 10; Conserv
   126
                                                              18 EAEPIMILKKWPWWPWRR 35
| : ::: ||||||||||
ELQSVILPWKWPWWPWRR 143
                                                                                                                                       Conservative
                                                                                                                                                                         33.1%;
55.6%;
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Pred. No. 0.
                                                                                                                                                 Mismatches
                                                                                                                                                                             DB 1; Length 144; 0.0075;
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hypothetical protein CPj0426 [imported] - Chlamydophila pneumoniae (strain J138) hypothes: Chlamydophila pneumoniae, Chlamydia pneumoniae c; Species: Chlamydophila pneumoniae c; Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 02-Mar-2001 c; Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 02-Mar-2001 c; C; Accession: H86543 R; Kimoto, M.; Tabuchi, M.; Kishi, F.; Ouchi, K.; Shiba, R; Shirai, M.; Hirakawa, H.; Kimoto, M.; Tabuchi, M.; Kishi, F.; Ouchi, K.; Shiba, Nucleic Acids Res. 28, 2311-2314, 2000 A; Title: Comparison of whole genome sequences of chlamydia pneumoniae J138.

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RESULT

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conserved hypothetical protein frameshifted CP0327 [imported] - Chlamydophila N;Alternate names: hypothetical protein CT277 homolog C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 11-May-2000 C;Date: 23-Apr-1999 Mtext_change 11-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
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A; Residues: 1-192 <STO>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Accession: D72081; G81589
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C;Species: encephalomyocarditis virus, EMCV
A;Note: host Homo sapiens (man)
C;Date: 28-Aug-1985 #sequence_revision 28-Aug-1985 #text_change 16-Jul-1999
C;Accession: A03906; JN0383
R;Palmenberg, A.C.; Kirby, E.M.; Janda, M.R.; Drake, N.L.; Duke, G.M.; Potratz, Rucleic Acids Res. 12, 2969-2985, 1984
A;Title: The nucleotide and deduced amino acid sequences of the encephalomyocard A;Reference number: A03906; MUID:84169586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Residues: 1-192 < REA>
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                                                                                                                                                                                                                                                                               genome polyprotein - encephalomyocarditis virus W;Contains: coat protein VPI; coat protein VP2; EC 3.4.-.-); RNA-directed RNA polymerase (EC 2.C;Species: encephalomyocarditis virus, EMCV
                                                                                                                                                                                                                                                                                                                                                                                                                               GNNYE
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Best Local Similarity
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Experimental source: strain AR39, HL cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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Pred. No. 0.
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Pred. No. 0.74;
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0.74;
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F:137-391/Product: coat protein VP2 *status predicted <VP2>
F:392-622/Product: coat protein VP3 *status predicted <VP3>
F:623-910/Product: coat protein VP1 *status predicted <VP1>
F:625-911-1056/Product: core protein P2-A *status predicted <P2A>
F:1057-1192/Product: core protein P2-B *status predicted <P2B>
F:1057-1192/Product: core protein P2-C *status predicted <P2C>
F:1193-1517/Product: core protein P2-C *status predicted <P2C>
F:1508-1605/Product: core protein P3-A *status predicted <P3A>
F:1606-1625/Product: genome-linked protein VPg *status predicted <P3A>
F:1606-1625/Product: genome-linked protein VPg *status predicted <P3C-
F:1606-1625/Product: genome-linked protein VPg *status predicted <P3C-
F:1606-1625/Product: RNA-directed RNA polymerase *status predicted
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A; Residues: 1337-1396, 'L', 13
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protein F5D14.5 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Mar-2001
C;Accession: E86447
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White
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A; Residues: 1-114 <OLI>
A; Cross-references: EMBL: AL049763; PIDN: CAB42078.1; GSPDB: GN00070;
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Best Local S
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Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 03-Dec-1999
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27.3%;
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Pred. No. 15;
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Pred. No. 1
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A; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khan, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Mait Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H. A; Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W. A; Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis. A; Reference number: A86141; MUID:21016719
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A; Residues: 1-95 <STO>
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                                                                                                                                            hypothetical protein slr1306 - Synechocystis sp. (strain PCC 6803)
c:Species: Synechocystis sp.
A:Variety: PCC 6803
C:Date: 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 08-Oct-1999
C:Accession: S74708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R; Wu, X.; ROY, K.L.
J. Bacteriol. 175, 37-52, 1993
A; Title: Complete nucleotide sequence of a linear A; Reference number: S30400; MUID:93106972
A; Accession: S30401
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                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Start codon:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Genome: plasmid pSCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:X54107; NID:g48758;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-451 <WUX>
                                                                                        C; Accession: $74708
R; Kaneko, T.; Sato, S.; Kotani,
o, K.; Okumura, S.; Shimpo, S.;
DNA Res. 3, 109-136, 1996
                                                                                                                                                                                                                                                              RESULT
             A;Reference number: S74322; MUID:97061201
A;Accession: S74708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :Genetics:
                                                                           A; Title: Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;Date: 30-Apr.1998 #sequence_revision 08-May-1998 #text_change 22-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genetics:
                                                                                                                                                                                                                                                                                                                                                                                              Matches
Status: preliminary
                                                                                                                                                                                                                                                                                                                    362 LRWPEFGFGLSPATGMGAEELRLMDWLPWR-----GPRSE-----REWPAQFCEGGTWPW 411
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                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
nes 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                         2 LRWP--
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S30401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                         analysis of the genome of the unicellular cyanobacterium Synechocystis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -WWPWRRKHEAEPEAEPIMILK----KWPWWPW 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25.0%;
21.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                 25.0%;
25.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 59; DB Pred. No. 1.1; 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NID: g8920603;
                                                                                                                 H.; Tanaka, A.; Asan
Takeuchi, C.; Wada,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.;
Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; M
                                                                                                                                                                                                                                                                                                                                                                                                                   Score 59; DB: pred. No. 5.6;
                                                                                                                                                                                                                                                                                                                                                             -WWPWRRKHEAEPEAEPIMILKKWP----
                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PVLVITDVGGEWSWWWW 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shinn, P.; Southwick, A.M.; Sun, H.; Tallon,
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1.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIDN:CAA38041.1; PID:g581632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIDN: AAF81325.1;
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                                                                                                                     Asamizu,
Vada, T.; V
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                                                                                                                       Watanabe, A.;
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                                                                                                                           Yamada,
                                                                                                                         Y.; Miyajima, N
Yamada, M.; Yasu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ψ
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                                                                                                                       Yasuda
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A;Residues: 1-485 <KAN>
A;Cross-references: EMBL:D90901; GB:AB001339; NID:g1651897; PIDN:BAA16859.1;
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cell 66, 769-780, 1991
A;Title: The act cluster contains regulatory and A;Reference number: A40046; MUID:91347376
A;Accession: C40046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antibiotic transport-associated protein actII-3 - Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Species: 30-Jun-1992 *sequence_revision 30-Jun-1992 *text_change 22-Oct-1999 C;Date: 30-Jun-1992 *sequence_revision 30-Jun-1992 *text_change 22-Oct-1999 C;Date: 30-Jun-1992 *sequence_revision 30-Jun-1992 *text_change 22-Oct-1999 C;Date: 30-Jun-1992 *sequence_revision 30-Jun-1992 *sequence_re
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A;Residues: 1-711 <FER>
A;Cross-references: GB:M64683; NID:g153143;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein SPBC646.15c - fission yeast (SC) Species: Schizosaccharomyces pombe C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Seeger, K.; Harris, D.; Wood, V.; submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: EMBL:AL035216; PIDN:CAA22819.1; A;Experimental source: strain 972h-; cosmid c646
                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-376 <SEE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary; translated from GB/EMBL/DDBJ
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A; Accession: T40591
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                                                                                                                                                                                                                                                     A;Map position: 2
A;Introns: 49/1; 126/2; 312/2; 350/1
C;Superfamily: Schizosaccharomyces pombe
B
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                                                                                                                                                                                                                                                                                                                                            A; Gene: SPDB: SPBC646.15c
                                                                                                                                                                                                                                                                                                                                                                             C;Genetics
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Best Local Similarity
Matches 12; Conser
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Best Local
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236 WHWKRKQKSSS--
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nes 10; Conserv
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                                                        7 WPWRRKHEAEPEAEPIMILKKWPWWPW 33
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9; Conservative
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1991
                                                                                                                 Conservative
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        -LKVRPWGPW 255
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Pred.
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                                                                                                                                               Score 57.5;
Pred. No. 7
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January 1999
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. 12;
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                                                                                                                          7;
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1996
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env polyprotein

precursor -

Maedi/Visna virus (strain

1514)

VCLJVS RESULT ·11

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RESULT
S77448
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A;Title: Nucleotide sequence of the visna A;Reference number: A90869; MUID:85254938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
       hypothetical protein
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C; Date: 28-Feb-1
C; Accession: A03
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A; Residues: 1-982 <SON>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .W.; Petursson, G.

Irology 193, 89-105, 1993

.Title: Nucleotide sequence and biological properties

.Reference number: A45390; MUID:93174981

.:Accession: E45390
                                                                                                                                                                                                                                                                                                                           Superfamily: visna lentivirus type E retrovirus env polyprotein; Reywords: capsid protein; coat protein; glycoprotein; polyprotein; 1-100/Domain: signal sequence #status predicted <SIG>;1-10656/Product: exterior membrane glycoprotein #status predicted <IMM>;657-983/Product: transmembrane glycoprotein #status predicted <IMM>;836-852/Domain: transmembrane #status predicted <IMM>;140,161,206,258,298,364,381,387,403,414,435,439,470,475,481,491,501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;Molecule type; DNA
;Residues: 1-983 <AND>
;Cross-references: GB:S55323; NID:g265825; PIDN:AAB25463.1; PID:g265830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contains: exterior membrane glycoprotein; transmembrane glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;Alternate names:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Superfamily: visna lentivirus type E retrovirus env polyprotein; keywords: capsid protein; coat protein; glycoprotein; polyprote; loo/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101-656/Product: exterior membrane glycoprotein #status predicted <EXT>
657-982/Product: transmembrane glycoprotein #status predicted <TMM>
140,161,206,258,298,364,370,381,387,403,414,435,439,470,475,481,491,501,515,527,537,5,697,764,771,787,821/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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Best Local :
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                                                                                                                   IWRATWWAWKTSPWRHNWRTMPYITLLPILVIWQW
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12; Conserv
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eb-1986 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      precursor - Maedi/Visna virus (strain KV1772) (provirus)
                                                                                                                                                                                                               Conservative
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       s111080 -
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    Synechocystis
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Pred. No. 35;
1; Mismatches
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                                                                                                                                                                                                                                    Score 55.5;
Pred. No. 35;
                                                                                                                                                                                                            Mismatches
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sp.
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  (strain PCC 6803)
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                   R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Hc Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998

A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complet A;Reference number: A70500; MUID:98295987

A;Accession: B70741
                                                                                                                                                                                                                                                                                                     RESULT
B70741
                                                                                                                                                                                                                           probable moeY protein - Mycobacterium tuberculosis (strain H37RV)
C;Species: Mycobacterium tuberculosis
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 2
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C; Accession: B70741

#text\_change 22-Oct-1999

iminary; nucleic acid sequence

not shown;

translation not shown

complete

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Holroyd

Gordon

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A;Variety: PCC 6803
C;Date: 25-Apr-1997 #sequenc
C;Accession: S77448
 В
                                                                                                                                                A;Introns: 34/3; 143/2; 227/2; 262/3; 380/3
C;Superfamily: Caenorhabditis elegans hypothetical protein ZK899.2
                                                                                                                                                                                                                                                                                                                            submitted to the EMBL Data Library, A; Reference number: 220468
A; Accession: T28094
                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical protein ZK899.2 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change
                                                                                                                                                                                       A; Map position:
                                                                                                                                                                                                       A; Gene: CESP: 2K899.2
                                                                                                                                                                                                                                        A; Experimental source:
                                                                                                                                                                                                                                                           A; Cross-references:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R; Kaneko, T.; Sato, S.; Kotani, o, K.; Okumura, S.; Shimpo, S.; DNA Res. 3, 109-136, 1996
                                                                                                                                                                                                                                                                                                                                                                               R;Kershaw,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
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A; Residues: 1-352 <KAN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Title: Sequence analysis of the genome of the unicellular cyanobacterium Synechocys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Reference number: S74322; MUID:97061201
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Best Local
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175 WWTW---HDTDPN----IFDRMNWVPW 194
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                                6 WWPWRRKHEAEPEAEPIMILKKWPWWPW 33
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9; Conserv
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                                                                                23.3%;
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Takeuchi, C.; W
                                                                Score 55; DB
Pred. No. 18;
3; Mismatches
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                                                                                                Length 452
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                                                                8;
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A; Holecule type: DAN
A; Residues: 1713 CORE
A; Cross : references: CB: 275555; CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: 275555; CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: 275555; CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
A; Cross : references: CB: AL123456; NID: 93261608; PIDN: CAAA99988.1; PID: e250356;
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Title: Perfect score:

SCHNIZ-444-MODSEQ2.PEP 236

1 ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK

Scoring table: Sequence:

Gapop 10.0 , BLOSUM62

Gapext 0.5

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 sv

summaries

Database

SwissProt\_39:\*

score greater than or equal and is derived by analyzing

is the number of results predicted by chance to have a ater than or equal to the score of the result being printed, rived by analysis of the total score distribution.

Result

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Score

Query Match

Length

DB

Description

bos taurus

YHJG\_ECOLI TGLK\_RAT ENV\_VILV1

VGL2\_IBVD2 VGL2\_IBVB

avian avian avian avian visna

avian

YMA3\_BACST
POLG\_EMCVB
POLG\_EMCVD
ATP8\_AYTAM
E434\_ADE40
FD6C\_BRANA

P33046
P03304
Q53903
Q53903
Q53905
P50655
P5595423
P148628
P3596862
P15893
P16893
P17593

YD55\_MYCTU
AP22\_APIME
FD6C\_SOYBN
SYC1\_MYCTU
VGL2\_CVH22
ENV\_OMVVS

55.55

ENV\_VILVK

ATP8\_ANAPL POLG\_EMCV

ENV\_VILV2

VGL2\_IBVK
VGL2\_IBVM
VGL2\_IBV6
Y121\_BPT4
MEND\_ECOLI
YD43\_MYCTU
YA05\_SCHPO
YBHO\_ECOLI

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Total number of

hits satisfying chosen parameters:

93435 segs, 34255486 residues

OM protein -

protein search, using sw model

2001,

08:44:55 ;

GenCore version 4.5 Copyright (c) 1993 - 2000 Comp

Compugen

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Search time 17.73 Seconds (without alignments) 69.554 Million cell updates/sec
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C_BOVIN STANDARD;

P33046;

01-OCT-1993 (Rel. 27, Cr)

01-OCT-1993 (Rel. 27, La)

01-NOV-1997 (Rel. 35, La)

INDOLICIDIN PRECURSOR.
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TISSUE-Bone marrow;
TISSUE-Bone marrow;
MEDLINE-92392368; PubMed-1520337;
MEDLINE-92392368; PubMed-1520337;
del Sal G., Storici P., Schneider C., Romeo D., Zanetti M.;
del Sal G., Storici P., Schneider C., Romeo D., Zanetti M.;
del Sal G., Zanetti M.;
del
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Pecora; Bovoidea
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Bovinae; Bos.
MCBI_TaxID=9913;
                         Antibiotic; Amidation; $ SIGNAL 1 29 PROPEP 30 130 PEPTIDE 131 143 MOD_RES 30 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cullor J.S.;
"Indolicidin, a neutrophils.";
                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                        FUNCTION: POTENT MICROBICIDAL ACTIVITY, ACTIVE AGAINS: STAPHYLOCOCCUS AUREUS AND ESCHERICHIA COLI.

1- TISSUE SPECIFICITY: LARGE GRANULES OF NEUTROPHILS.

1- PTM: ELASTASE MIGHT BE RESPONSIBLE FOR ITS MATURATION.

1- SIMILARITY: BELONGS TO THE CATHELICIDIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                  SIGNAL
PROPEP
PEPTIDE
MOD_RES
                                                                                                                                                                                                  EMBL; X67340; CAA47755.1;
PIR; JC1222; JC1222.
PIR; A42387; A42387.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Selsted M.E., Novotny M.J., Morris W.L., Tang Y.-Q., Smith W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Neutrophils;
MEDLINE=92165771; PubMed=1537821;
                                                                                                                       Pfam; PF00666; Cathelicidins; 1.
PROSITE; PS00946; CATHELICIDINS_1;
PROSITE; PS00947; CATHELICIDINS_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 131-143.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a novel bactericidal tridecapeptide amide from
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Last annotation update)
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UFO_HUMAN
YAAO_BACSU
NUGC_SYNY3
AP73_APIMS
TPSN_MOUSE
SX13_MOUSE
SX13_MOUSE
YHJJ_SALTY
O45B_DROME
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        INDOLICIDIN.
PYRROLIDONE CARBOXYLIC ACID
SIMILARITY).
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Q9r233
Q04891
P50335
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Q66766
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P20892
P32176
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P37509
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Best Local Similarity
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Pfam; PF00910; I
Pfam; PF00073; I
Polyprotein; Coa
RNA-directed RNA
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DISULFID
MOD_RES
SEQUENCE
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21-JUL-1986 (Rel. 01, Last sequence update)
15-DEC-1998 (Rel. 37, Last sequence update)
6ENOME POLYPROTEIN [CONTAINS: COAT PROTEINS VP1 TO VP4; CORE PROTEIN P2A TO P2C, P3A; GENOME-LINKED PROTEIN VPG; PICORNAIN 3C
(EC 3.4.22.28) (PROTEASE 3C) (P3C); RNA-DIRECTED RNA POLYMERASE P3D (EC 2.7.7.48)].
 PROPEP
CHAIN
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                                                                                                                                                                                                   EMBL; X00463; CAA25152.1;
PIR; A03906; GNNYE.
HSSP; P12296; 1MEC.
                                                                                                                                                                                                                                                  the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                       "The nucleotide and deduced amino acid sequences of the encephalomyocarditis viral polyprotein coding region."; nucleic Acids Res. 12:2969-2985(1984).

-I- FUNCTION: P3C POLYPEPTIDE IS A PROTEASE THAT CLEAVES AT CERTAIN Q/G SITES IN THE POLYPROTEIN. IT MAY BE A CYSTEINE PROTEASE.

-I- SUBUNIT: THE VIRUS CAPSID IS COMPOSED OF 60 ICOSAHEDRAL UNITS, EACH OF WHICH IS COMPOSED OF ONE COPY EACH OF PROTEINS VP1, VP2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Encephalomyocarditis virus.
Viruses; ssRNA positive strand viruses,
Cardiovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-84169586; PubMed-6324136;
Palmenberg A.C., Kirby E.M., Janda M.R., Drake N.L., Duke Potratz K.F., Collett M.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POLG_EMCV
P03304;
                                                                                                                                      InterPro;
                                                                                                                                                                            MEROPS; C03.009; -. MEROPS; U29.001; -.
                                                                                                                                                      InterPro;
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                                                                                                                                                                 InterPro;
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                                                                       rotein; Coat
irected RNA p
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                                                                                                                                      IPR000605; -. IPR001205; -. IPR001676; -.
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RNA_helicase; 1.
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COAT PROTEIN VP4 (RHO).
COAT PROTEIN VP2 (BETA).
COAT PROTEIN VP3 (GAMMA)
COAT PROTEIN VP1 (ALPHA)
CORE PROTEIN VP1 (G).
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
AMIDATION (G-144 PROVIDE AMIDE GROUP).
E3B1CBBE55C09911 CRC64;
                                                              Hydrolase; This LEADER PEPTIDE
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0.003;
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ng as its content
                                                                       Thiol protease;
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          (BETA).
(GAMMA)
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Best Local
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Q53902;
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Fernandez-Moreno M.A., Caballero J.L., Ho
"The act cluster contains regulatory and
direct targets for translational control
   SEQUENCE
                                                                                                                                                                                                                     Hypothetical TRANSMEM
                                                                                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                                                                                                         EMBL; M64683; AAA26691.1; -.
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                                                                                                                                                TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR
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12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL). BELONGS TO THE MMPL FAMILY.
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                                                                                                                                                                                                                                                     SSD;
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PICORNAIN 3C (P22).
RNA-DIRECTED RNA POLYMERASE P3D (E).
MYRISTATE (BY SIMILARITY).
PROTEASE (POTENTIAL).
PROTEASE (POTENTIAL).
PROTEASE (POTENTIAL).
S MW; 26BCB1BB7CF68CB5 CRC64;
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Pred. No. 5
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A5466BEDABEED1B6 CRC64;
                                      POTENTIAL.
                                                     POTENTIAL.
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E PROTEIN P2C
E PROTEIN P3A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Streptomycetaceae; Streptomyces.
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nd antibiotic export genes,
ol by the bldA tRNA gene of
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T 15-JUL-1999 (Rel. 38, CAST PC
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P50655;
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MEDLINE=94047124; PubMed=8230253;
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Archosauria; Aves; Neognathae; Anseriformes; Anatidae; Anas
NCBI_TaxID=8839;
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01-OCT-1996 (Rel. 34, Last sequence update)
01-OCT-2090 (Rel. 40, Last annotation update)
ATP SYNTHASE PROTEIN 8 (EC 3.6.1.34) (ATPASE
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J. Mol. Evol. 37:296-310(1993)
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Hydrogen ion transport; CF(0); Mitochondrion; Transmembrane.
TRANSMEM 8 24 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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                      Viruses; Retroid
NCBI_TaxID=11742;
                                                     Visna lentivirus
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SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8 FAMILY.
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MEDLINE-88062965; PubMed-2824836;
MEDLINE-88062965; PubMed-2824836;
Braun M.J., Clements J.E., Gonda M.A.;
Braun M.J., Clements J.E., Gonda M.A.;
"The visna virus genome: evidence for a hypervariable site in '
"The visna virus genome: evidence for a hypervariable site in '
"The visna virus genome: endence proteins."
"The visna virus genome: homology among lentivirus envelope proteins."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Nucleotide sequence AIDS virus.";
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Andresson O.S., Elser J.E., Tobin G.J., Greenwood J.D., Gonda Madresson O.S., Elser J.E., Tobin G.J., Greenwood J.D., Gonda Macrigson O., Andresdottir Y., Benediktsdottir E., Carlsdottir Maentylae E.O., Rafnar B., Palsson P.A., Casey J.W., Petursson "Nucleotide sequence and biological properties of a pathogenic proviral molecular clone of neurovirulent visna virus.";

Virology 193:89-105(1993).
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01-JUN-1994
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; L06906; AAA48362.1;
E45390; E45390.
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MEDLINE-91134986; PubMed-1847257;
Staskus K.A., Retzel E.F., Lewis E.D., Wietgrefe S.W.,
Staskus K.A., Retzel E.F., Lewis E.D., Geiser P.T., H.
Staskus K.A., Retzel E.F., Lewis E.D., Geiser P.T., H.
Staskus K.A., Retzel E.F., Lewis E.D., Wietgrefe S.W.,
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Pfam; PF00517; GP41
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P23423;
01-NOV-1991
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Viruses; Retroid
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viruses; Retroviridae; Lentivirus.
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Nature 39:537-544(1998).
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01-OCT-1996 (Rel. 34, Last sequence up
30-MAY-2000 (Rel. 39, Last annotation
HYPOTHETICAL 78.2 KDA PROTEIN RV1355C.
RV1355C OR MTCY02B10.19C.
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01-OCT-1996
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NCBI_TaxID=1773;
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Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
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                                                                                                                                                                                                       use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
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                                                                                                              Hypothetical protein.
SEQUENCE 715 AA; 78181 MW;
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Pred. No. 14;
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                                                   Score 55; DB pred. No. 11; 7; Mismatches
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ID FD6C_SOYBN
AC P48628;
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Best Local Similarity
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata;
Apoidea; Apidae; Apis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Casteels-Josson K., Capaci T., Casteels P., Tempst P.;
"Apidaecin multipeptide precursor structure: a putative mechanism
amplification of the insect antibacterial response.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=93223697; Pu
Casteels-Josson K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBO J. 12:1569-1578(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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PIR; S35331; S35331.
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Cloning of a higher-plant plastid omega-6 fatty acid desaturase cDNA and its expression in a cyanobacterium."; plant physiol. 105:635-641(1994).

PRINTIPE SCOND DOUBLEBOND IN THE BIOSYNTHESIS OF 16:3 AND 18:3 FATTY ACIDS.

ACIDS, IMPORTANT CONSTITUENTS OF PLANT MEMBRANES. IT IS THOUGHT TO USE FERREDOXIN AS AN ELECTRON DONOR AND TO ACT ON FATTY ACIDS ESTERIFIED TO GALACTOLIPIDS, SULFOLIPIDS AND PHOSPHATIDYLGIZCEROL.

PANTHMAY: POLYUNSATURATED FATTY ACID BIOSYNTHESIS.

PROMAIN: THE HISTIDINE BOX DOMAINS MAY CONTAIN THE ACTIVE SITE AND/ OR BE INVOLVED IN METAL ION BINDING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-FEB-1996 (Rel.
01-FEB-1996 (Rel.
01-FEB-1996 (Rel.
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Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I;
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OMEGA-6 FATTY ACID
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (S or send an email to license@isb-sib.ch).
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                                                                  15-JUL-1998 (Rel. 36, Cres
15-JUL-1998 (Rel. 36, Last
30-MAY-2000 (Rel. 39, Last
CYSTEINYL-TRNA SYNTHETASE
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Oxidoreductase; Fatty acid biosynthesis; Chloroplast; Membrane;
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Hitz W.D., Carlson T.J., Booth J.R. Jr., Kinney A.J.,
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Bacteria; Firmicutes; Actinobacteria; Actinobacteridae; Actinomycetales; Corynebacterineae; Mycobacteriaceae; M
                           Mycobacterium tuberculos:
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CYSS1 OR CYSS OR RV3580C OR MTCY06G11.27C.
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DESATURASE, CHLOROPLAST
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HISTIDINE BOX 3.
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SOT TITES BEAR A REAL REPORT OF THE STREET O
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VGL2_CVH22
RT RANGE OF THE REAL PROPERTY 
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Best Local :
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"Deciphering the biology of Mycobacterium tuberculosis from the
                                                                                                                                                                                                                                                                                                                                                                                                                            01-APR-1990
01-APR-1990
15-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complete genome sequence."; Nature 393:537-544(1998).
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[1]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Aminoacyl-trna synthetase; Protein biosynthesis;
SITE 35 45 "HIGH" REGION.
SITE 267 271 "KMSKS" REGION.
BINDING 270 270 ATP (BY SIMILARITY).
SEQUENCE 469 AA; 51854 MW; 515F9D1948ZADCOE C
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                          MEDLINE=90264837; PubMed=2345367;
Raabe T., Schelle-Prinz B., Siddell S.G.;
"Nucleotide sequence of the gene encoding
                                                                                                                                                                                                                                             Viruses; ssRNA
Coronaviridae;
                                                                                                                                                                                                                                                                                                                                                                                       01-APR-1990 (Rel. 14, Created)
01-APR-1990 (Rel. 14, Last sequence u)
15-7UL-1990 (Rel. 38, Last annotation
E2 GLYCOPROTEIN PRECURSOR (SPIKE GLYCO
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prINTS; pr00983; TRNASYNTHCYS.
prOSITE; pS00178; AA_TRNA_LIGASE_I; FALSE_NEG
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SUBURIT: MONOMER (BY SIMILARITY).
SUBCELLULAR LOCATION: CYTOPLASMIC.
SIMILARITY: BELONKS TO CLASS-I AMINOACYL-TRNA SYNTHETASE FAMILY.
STRONG, TO METHIONYL-TRNA SYNTHETASE.
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en the Swiss Institute of Bioinformatics and the EM
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Coronavirus.
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R., Parkhill J.,
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ATP (BY SIMILARITY).
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tation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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PIR; A34766; VGIHHC
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FUNCTION: THE PEPLOMER PROTEIN MEDIATES THE BINDING OF VIRIONS TO THE HOST CELL RECEPTOR AND IS INVOLVED IN MEMBRANE FUSION AND IN SYNCYTIUM FORMATION.
                                                1113 KWPWWVW 1119
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          STANDARD;
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EXTRACELLULAR (POTENTIAL).
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Ovine lentivirus (
Viruses; Retroid v
NCBI_TaxID=11664;
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01-AUG-1990 (Rel. 15, Last sequence update)
01-JUN-1994 (Rel. 29, Last annotation update)
ENV POLYPROTEIN PRECURSOR (COAT POLYPROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way use by non-profit institutions as long as its content.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lentivirus: phylogenetic hi
virology 175:434-447(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Querat G., Audoly G., Sonigo P., Vigne R.;
"Nucleotide sequence analysis of SA-OMVV, a visna
lentivirus: phylogenetic history of lentiviruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; M34193; AAA46783.1; -. EMBL; M31646; AAA66817.1; -.
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HIV; M34193; ENV$OMVVSACG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00517;
176 WPWNTYHWPLWQMENMRQWMKENEKEYTSRNNKTKEDIDALLAGKIRGRFCVPYPFALLK 235
                    4 WPW----WP------WRRKHEAEPEAE
                                                        Similarity
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                                           22.7%;
nilarity 20.6%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein;
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114498
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LEADER PEPTIDE.
                                                                                                      ₹,
                                              Score 53.5; D
Pred. No. 24;
7; Mismatches
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CRC64;
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236 CEEWCWYP

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RESULT
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YMA3_J
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01-AUG-1990 (Rel. 15, Last sequence update)
15-DEC-1998 (Rel. 37, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
GENOME POLYPROTEIN [CONTAINS: COAT PROTEIN VP1 TO VP4; CORE PROTEIN
P2A TO P2C, P3A, GENOME-LINKED PROTEIN VPG; PICORNAIN 3C
(EC 3.4.22.28) (PROTEASE 3C) (P3C); RNA-DIRECTED RNA POLYMERASE P3D
(EC 2.7.7.48)].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacillus stearothermophilus.
Bacteria; Firmicutes; Bacillus/Clostridium group;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q45633;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
SEQUENCE FROM N.A.

MEDLINE-89243189; PubMed-2541543;

Bae Y.S., Eun H.M., Yoon J.W.;

"Genomic differences between the diabetogenic and nondiabetogenic variants of encephalomyocarditis virus.";

Variants of encephalomyocarditis virus.";

Virology 170:282-287(1989).

-I- FUNCTION: P3C POLYPEPTIDE IS A PROTEASE THAT CLEAVES AT CERTAIN Q/G SITES IN THE POLYPROTEIN. IT MAY BE A CYSTEINE PROTEASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Liong E.C., Ferenci T.;
"Molecular cloning of a maltose transport gene from Bacillus "Molecular cloning of a transport gene from Bacillus stearothermophilus and its expression in Escherichia coli K-12.";
Mol. Gen. Genet. 243:343-352(1994).
-I- SIMILARITY: BELONGS TO THE UPF0097 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacillus/Staphylococcus
NCBI_TaxID=1422;
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HYPOTHETICAL 35.7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hypothetical
SEQUENCE 31
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                                                                                                                                                                                 Encephalomyocarditis virus (str
Viruses; ssRNA positive-strand
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                                                                                                                                                                       Cardiovirus
                                                                                                                                                  NCBI_TaxID-12105;
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15; Conserv
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14 AA; 35735 MW;
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39, Last annotation update)
KDA PROTEIN IN MALA 3'REGION (ORF3).
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Pred. No.
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no DNA stage; Picornaviridae;
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HSSP; P12296
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                                                                                                                                                                                                                                                                            Polyprotein; Coat protein; Co
RNA-directed RNA polymerase;
PROPEP 1 67
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 967
                      3 RWPWWPWRRKHEAEPEAEPIMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBUNIT: THE VIRUS CAPSID IS COMPOSED OF 60 ICOSAHEDRAL UNITS, EACH OF WHICH IS COMPOSED OF ONE COPY EACH OF PROTEINS VP1, VP2, VP3, AND VP4.

PTM: SPECIFIC ENZYMATIC CLEAVAGES IN VIVO YIELD MATURE PROTEINS. SIMILARITY: THE PROTEASE BELONGS TO PEPTIDASE FAMILY C3.
RAPWNPWKNTYHAVLRAEPYRV
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                                             Similarity
9; Conserv
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Pred.
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                                                                                                      PROTEASE (POTENTIAL).
PROTEASE (POTENTIAL).
W; 8540D0EB1437E8D4 CRC64;
                                                                                                                                         MYRISTATE (BY SIMILARITY).
                                                                                                                                                                                     CORE PROTEIN P3A
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                                               Mismatches
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PROTEIN VP3
PROTEIN VP1
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64;
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Q9jh31 tt virus. o
Q9duc4 tt virus. o
Q9dt80 tt virus. o
Q9dt81 tt virus. o
Q9dt81 rt virus. o
Q61427 mus musculu
Q9x8c2 streptomyce
Q91qn0 arabidopsis
Q91tu9 human immun
Q05074 streptomyce
P72844 synechocyst
Q98414 ovine lenti
                                                                066765 encephalomy 091u04 human immun 091tz6 human immun 091tx6 human immun 091tu7 human immun
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Q9duc9 tt virus. o
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## ALIGNMENTS

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RESULT
Q9JH31
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Best Local
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O9Y7V5
O1-NOV-1999 (TrEMBLrel. 12, Created)
O1-NOV-1999 (TrEMBLrel. 12, Last sequence update)
O1-NOV-1999 (TrEMBLrel. 12, Last annotation update)
O1-NOV-1999 (TrEMBLrel. 12, Last annotation update)
O1-NOV-1999 (TrEMBLREL. 12, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN-ATCC 32173;
PuyesKy M., Benhamou N., Ponce Noyola P., Bauw G., Ziv T.,
PuyesKy M., Benhamou N., Ponce Noyola P., Bauw G., Ziv T.,
van Montagu M., Herrera Estrella A., Horwitz B.A.;
van Montagu M., Herrera Estrella A., Horwitz B.A.;
"Developmental regulation of a gene encoding a multidomain
"Developmental regulation of a gene encoding a multidomain
"Developmental regulation of a gene encoding a multidomain
"Developmental regulation of Trichoderma, cmpl.";
conidiospore surface protein of Trichoderma, cmpl.";
submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ133561; CAB40845.1;
EMBL; AJ133561; CAB40845.1;
SEQUENCE 1245 AA; 135824 MW; 3249C749AFAOCDF8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Fungi; Ascomycota; mitosporic Ascomycota; Trichoderma
NCBI_TaxID=5544;
                                   09JH31
09JH31;
01-0CT-2000
01-0CT-2000
01-0CT-2000
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ORF1.
TT virus.
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10; Conserv
                                       (TrEMBLrel. (TrEMBLrel. )
                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                           PRELIMINARY;
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15,
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                                                Created)
Last sequence update)
Last annotation update)
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RESULT
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Best Local
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Best Local Similarity 34.4%;
Matches 11; Conservative
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01-MAR-2001
01-MAR-2001
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NCBI_TaxID=68887;
                                                                                                                               Q9DT80
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The entire nucleotide sequences of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             phylogenetic relatedness.";
Virology 277:368-378(2000).
EMBL; AB041959; BabB19313.1; -.
SEQUENCE 723 AA; 85393 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Okamoto H., Nishizawa T., Tawara A., Peng Y., Ta
Kishimoto J., Tanaka T., Miyakawa Y., Mayumi M.;
"Species-specific TT viruses in humans and nonhu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-MF-TTV9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PubMed=11080484;
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AB028669; BAA94878.1; -

NCE 746 AA; 88561 MW;
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11; Conservative
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Pred. No. 1.7;
1; Mismatches
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Pred. No. 1
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annotation update)
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1.7;
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original TTV
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RESULT
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AC Q6
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Q61427;
Q61427;
Q61427;
Q61427;
Q61427;
Q1-NOV-1996 (TrEMBLrel. 01, Created)
Q1-NOV-1996 (TrEMBLrel. 01, Last sequence update)
Q1-NOV-1996 (TrEMBLrel. 16, Last annotation update)
Q1-MAR-2001 (TrEMBLrel. 16, Last annotation update)
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Q9DT81;
01-MAR-2001
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SEQUENCE
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Sai T., Sugai Y.;
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NON_TER 49
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EMBL; AB050448; B
SEQUENCE 748 AA
                                                                                                                                                                                                                                                                                                                                                                TT virus.
Viruses; ssDNA viruses;
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"TT virus mRNAs detected in the
                                                                                                                                                                                                                                                                                                      Okamoto H., Nishizawa
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            Eukaryota;
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zawa T., Tawara A
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   Chordata;
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   Craniata; Ver
Sciurognathi;
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   Vertebrata; thi; Muridae;
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"Genome sequences of Chlamydla trachomat pneumoniae AR39.";
Nucleic Acids Res. 28:1397-1406(2000).
EMBL; AE001625; AAD18570.1;
EMBL; AE002194; AAF38182.1;
TIGR; CP0327;
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PF00093; vwc; 1.
PF001208; VWFC; 1.
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01-MAY-1999 (TrEMBLrel. 10, Last second-

01-MAR-2001 (TrEMBLrel. 16, Last an

CT277 SIMILARITY (CPJ0426 PROTEIN).
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Kalman S., Mitchell W., Marathe R., Lammel C., Fan J., Hyman R.W., Olinger L., Grimwood J., Davis R.W., Stephens R.S.;
"Comparative genomes of Chiamydia pneumoniae and C. trachomatis.";
Nat. Genet. 21:385-389(1999).
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Bacteria; Chlamydiales; Chlamydiaceae; Chlamydo
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Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.
"Comparison of whole genome sequences of Chlamydia pne
from Japan and CWL029 from USA.";
Nucleic Acids Res. 28:2311-2314(2000).
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MEDLINE-20150255; PubMed=10684935;
MEDLINE-20150255; PubMed=10684935;
White O., Brunham R.C., Shen C., Gill S.R., Heidelberg J.F.,
White O., Hickey E.K., Peterson J., Umayam L.A., Utterback T.,
Berry K., Bass S., Linher K., Weidman J., Khouri H., Craven B.,
Berry K., Bass S., Linher K., Weidman J., Khouri H., Craven B.,
Bernman C., Dodson R., Gwinn M., Nelson W., DeBoy R., Kolonay J.,
McClarty G., Salzberg S.L., Eisen J., Fraser C.M.;
McClarty G., Salzberg S.L., Eisen J., Fraser C.M.;
McClarty G., Salzberg S.L., Eisen J., Fraser C.M.;
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", X54876; CAA38657.1; -.

MGI:88467; Colal.
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01-NOV-1996 (TrEMBLrel. 01, L
01-JUN-2000 (TrEMBLrel. 14, L
POLYPROTEIN, COMPLETE CDS.
Encephalomyocarditis virus.
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Virology 277:368-378(2000).
EMBL; AB041957; BAB19308.1;
SEQUENCE 735 AA; 86132 MW;
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Kishimoto J., Tanaka T., Miyakawa Y., Mayumi M.,
"Species-specific TT viruses in humans and nonhu
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                 encephalomyocarditis virus RNA translation
J. Virol. 66:1602-1609(1992).
EMBL; M81861; AAA43037.1;
HSSP; P12296; IMEC.
                                                     Duke G.M., Hoffman M.A., Palmenber Sequence and structural elements
                                                                       SEQUENCE FROM N.A. MEDLINE-92148946; PubMed-1310768;
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Q9ITZ6;
01-OCT-2000
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01-OCT-2000 (TrEMBLrel. 15, Last seque
01-MAR-2001 (TrEMBLrel. 16, Last annot
V-1 REVERSE TRANSCRIPTASE (FRACKENT).
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Pfam;
       Viruses;
                                  01-CCT-2000 (TrEMBLrel. 15, Created)
01-CCT-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation updat
V-1 REVERSE TRANSCRIPTASE (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                          "Gradual emergence and clinical relevance of HIV protease resistance in HART failure patients.",

Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.

EMBL; AJ401761; CAB86530.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN-97001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus
NCBI_TaxID-11676;
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01-OCT-2000
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                                                                                                                                                                                                                                                                                                                                                                  RNA-directed DNA polymerase.
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                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000477;
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PF000680; RNA_dep_RNA_pol;
PF00910; RNA_helicase; 1.
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12; Conservative
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12; Conser
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252 AA;
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29441 MW;
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Pred. No. 3.3;
8; Mismatches
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Last annotation update)
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Pred. No. 26;
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         Lentivirus.
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Q9ITX6;
01-OCT-2000
01-OCT-2000
01-MAR-2001
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NON_TER
SEQUENCE
                                                                                                            Q9ITU7;
                                     Human
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InterPro; IPR000477; -.
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      Viruses; Retroid viruses; NCBI_TaxID=11676;
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29450 MW;
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29346 MW;
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"Gradual emergence and clinical relevance of resistance in HAART fallure patients.";
Submitted (APR-2000) to the EMBL/GenBank/DDBJ EMBL; AJ401769; CAB86538.1; -. InterPro; IPR000477; -. Pfam; PF00078; rvt; 1.
                              01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last seque
01-MAR-2001 (TrEMBLrel. 16, Last annot
V-1 REVERSE TRANSCRIPTASE (FRAGMENT).
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"Gradual emergence and clinical relevance
resistance in HAART failure patients.";
Submitted (APR-2000) to the EMBL/GenBank/I
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immunodeficiency virus type 1.
es; Retroid viruses; Retroviridae;
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es; Retroviridae; Lentivirus.
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Last annotation updat
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Pred. No. 3.3;
8; Mismatches
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ance of HIV protease
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SEQUENCE FROM N.A.

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В
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Best Local S
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Pfam; PF00078; rvt; 1
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O9X8C2;
O9X8C2;
O1-NOV-1999 (TrEMBLrel. 12, Created)
O1-NOV-1999 (TrEMBLrel. 12, Last sequence update)
O1-NOV-1999 (TrEMBLrel. 12, Last annotation update)
O1-NOV-1999 (TREMBLREL. 12, Last annotation update)
HYPOTHETICAL 13.0 KDA PROTEIN.
SCE36.09.
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"A set of ordered cosmids and a detailed genetic and physical

"A set of ordered cosmids and a detailed genetic and physical

"A set of ordered cosmids and a detailed genetic and physical

the 8 Mb Streptomyces coelicolor A3(2) chromosome.";

the 8 Mb Streptomyces coelicolor A3(2) chromosome.";

submitted (MAY-1999) to the EMBL/GenBank/DDBJ databases.
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nes 12; Conserv
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Bentley S.D., Parkhill J., Barrell B.G., Rajandream M.A.;
Submitted (MAY-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-A3(2);
                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                         Redenbach M., Kieser H.M., Denapaite D., Eichner A., Cullum J. Kinashi H., Hopwood D.A.;
"A set of ordered cosmids and a detailed genetiq and physical the 8 Mb Streptomyces coelicolor A3(2) chromosome.";
mol. Microbiol. 21:77-96(1996).
EMBL, ALD49763; CAB42078.1;
                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                          Submitted (MAY-1999)
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                                                                                                                   Hypothetical protein.
SEQUENCE 114 AA; 1
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                           PEAEPIMILKKW-PWWPWRR 35
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252 AA;
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pred. No. 2.3;
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Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-CV. COLUMBIA;

STRAIN-CV. COLUMBIA;

Liu S.X., Chan A., Yu G., Lee J.M., Lenz C., Pham P., Sakano H.,

Toriumi M., Vysotskaia V.S., Chin C., Chiou J., Choi E., Chung M.,

Gonzalez A., Howng B., Liu A., Vaysberg M., Altafi H., Brooks S.,

Buehler E., Chao Q., Conn L., Conway A.B., Hansen N.F.,

Buehler E., Chao Q., Conn L., Conway A.B., Miranda M., Nguyen M.,

Johnson-Hopson C., Khan S., Kim C., Lam B., Miranda M., Nguyen M.,

Palm C.J., Shinn P., Southwick A., Davis R.W., Ecker J.R.,

Palm C.J., Shinn P., Southwick A.,

Theologis A.,

Federspiel N.A., Theologis A.,

"The sequence of BAC F5D14 from Arabidopsis thaliana chromosome 1.",

Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thallana (Mouse-ear cress).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Eukaryota; viridiplantae; Embryophyta; Tracheophyta; eurosids II; Magnoliophyta; eudicotyledons; Core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-CV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN-CV. COLUMBIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Theologis A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-CV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Theologis
                                                                                                                                                                                                                                                                                                                             Submitted (JUL-2000) to the EMBL; AC007767; AAF81325.1; SEQUENCE 95 AA; 10624 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15
                                                                                                                                                                                                                                                                                                                                                                                                                    Theologis;
                                                                                    46 WPYVYVAGVGGGRNWWWW------PVLVITDVGGENSWWWW
                                                                                                                                                WP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0 (TrEMBLrel. 15, 10 (TrEMBLrel. 15, 15) (TrEMBLrel. 15, 15)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (APR-2000)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COLUMBIA;
                                                                                                                                                                                                      Conservative
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                                                                                                                                                   -WWPWRRKHEAEPEAEPIMILK----KWPWWPW 33
                                                                                                                                                                                                                                     25.0%;
21.3%;
2001,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the EMBL/GenBank/DDBJ
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Last annotation update)
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                                                                                                                                                                                                                                        Score 59;
Pred. No.
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08:42:26
                                                                                                                                                                                                                                                                                                                                                      0C33985771E8B54E CRC64;
                                                                                                                                                                                                                    Mismatches
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                                                                                                                            81
                                                                                                                                                                                                                                        28;
                                                                                                                                                                                                                                           Gaps
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

OM protein protein search, using sw model

Run on: June 21, 2001, 08:34:03 ; Search time 42.99 Seconds (without alignments) 49.357 Million cell updates/sec

Sequence: Perfect score: SCHNIZ-444-MODSEQ2B.PEP 231

Title:

Scoring table: 1 ILRWPWWPWRRKHEAEPEAEPIMILRWPWWPWRRK 350

BLOSUM62 Gapop 10.0 , Gapext 0.

412676 seqs, 60623988 residues

Searched:

412676

Total number of hits satisfying chosen parameters:

Minimum DB seq Maximum DB seq length: 0 length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : A\_Geneseq\_0601:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1982.DAT:\*
/SIDS8/gcgdata/geneseq/geneseqp/AA1983.DAT:\*
/SIDS8/gcgdata/geneseq/geneseqp/AA1984.DAT:\*
/SIDS8/gcgdata/geneseq/geneseqp/AA1984.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1980. /SIDS8/gcgdata/geneseq/geneseqp/AA1981. /SIDS8/gcgdata/geneseq/geneseqp/AA1982. /SIDS8/gcgdata/geneseq/geneseqp/AA1986.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1987.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1988.DAT:\*

18: 20: 21: 10: 11: 12: 13: 13: 14: 15: 16: /SIDSB/gcgdata/geneseq/geneseqp/AA1991.DAT:\*
/SIDSB/gcgdata/geneseq/geneseqp/AA1992.DAT:\*
/SIDSB/gcgdata/geneseq/geneseqp/AA1993.DAT:\*
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/SIDSB/gcgdata/geneseq/geneseqp/AA1995.DAT:\*
/SIDSB/gcgdata/geneseq/geneseqp/AA1997.DAT:\*
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/SIDSB/gcgdata/geneseq/geneseqp/AA1999.DAT:\*
/SIDSB/gcgdata/geneseq/geneseqp/AA1999.DAT:\*
/SIDSB/gcgdata/geneseq/geneseqp/AA1099.DAT:\*
/SIDSB/gcgdata/geneseq/geneseqp/AA1091.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1989.DAT:\* /SIDS8/gcgdata/geneseq/geneseqp/AA1990.DAT:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

11	10	9	89	7	σ	5	4	ω	2	1	Result No.
86	86	90.5	90.5	90.5	95	95	128	128	154	162	Score
37.2	37.2	39.2	39.2	39.2	41.1	41.1	55.4	55.4	66.7	70.1	Query
12	12	21	. 21	21	15	15	63	63	28	27	Query Match Length DB
21	19	21	19	19	21	19	21	21	21	19	DB
AAY94496	AAY24550	AAY91796	AAW66376	AAY24552	AAY91784	AAW66360	AAY57142	AAY44668	AAY91800	AAW66363	ID
MBI-11B7 peptide d	Indolicidin analog	Amino acid sequenc	Cationic peptide o	Indolicidin analog	Amino acid sequenc	Indolicidin analog	Indolicidin fusion	Poly-(Indol (1-13)	Amino acid sequenc	Indolicidin analog	Description

.5 33.5	5 33.5	.5 33.5	33.8	33.8	8 33.8	8 33.8	9 34.2	9 34.2	0 34.6	0 34.6	0 34.6	0 34.6	0 34.6	0 34.6	1 35.1	1 35.1	1 35.1	1 35.1	1 35.1	1 35.1	2 35.5	2 35.5	2 35.5	2 35.5	3 35.9	3 35.9	4 36.4	6 37.2	6 37.2	6 37.2	86 37.2 20	6 37.2	6 37.2
21	19	18	21	21	19	19	21	19	21	21	21	19	19	19	21	21	21	19	19	19	21	21	19	19	21	19	18	21	19	21	19	18	21
18	61	89	œ	AAY91845	AAY24601	AAY24598	AAY91786	AAY24565	AAY91851	AAY91850	AAY91843	AAY24604	AAY24603	AAY24596	AAY91852	AAY91842	AAY91785	AAW66361	AAY24595	AAY24605	AAY91841	AAY91817	AAW66364				AAW12899	~	AAY24554	917	55	1288	AAY91791
Amino acid sequenc	Indolicidin analog	g	Amino acid sequenc-	S	_	Indolicidin analog	acid s	Indolicidin analog			cid s	Indolicidin analog		2	acid			2	Indolicidin analog	icidin		acid s	Indolicidin analog	Indolicidin analog	Amino acid sequenc	Indolicidin analog	'n	Amino acid sequenc	Indolicidin analog	as	Indolicidin analog	robia	Amino acid sequenc

#### ALIGNMENTS

	×	DT	XX	AC	×	IJ	AAWE	RESULT
		12-JAN-1999		AAW66363;		AAW66363 stan	AAW66363	JLT 1
•		(first				dard;		
		(first entry)				standard; peptide; 27 AA.		
						27		
						AA.		

Indolicidin analogue MBI 11B20.

Indolicidin analogue; resistance; cationic peptide; antibiotic; bacterial infection; tolerance; antibacterial; microorganism; bacteria; fungus; parasite; virus.

Bos taurus. Synthetic.

WO9840401-A2.

17-SEP-1998

10-MAR-1998;

98WO-CA00190

25-FEB-1998; 10-MAR-1997; 20-AUG-1997; 26-SEP-1997; 98US-0030619. 97US-0040649. 97US-0915314. 97US-0060099

(MICR-) MICROLOGIX BIOTECH INC

Fraser JR, McNicol PJ, West MHP;

WPI; 1998-520800/44.

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RRESULT
AAY910AO
AAY910AO
XX AAY9
XX AAY9
XX CAT
XX CAT
KW Leu
KW Leu
KW Mule
XX Syn
XX Syn
XX Syn
XX 14-
XX M05
XX Syn
XX N
PF 12
PF 12
PF 14
XX XX XX
XX XX
PF 12
PF 16
XX XX
XX XX
XX XX
YX M05
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Best Local Similarity
Matches 25; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) agent resistance. The combinations of antibiotics and cationic inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an antibiotic agent. They can be used for killing e.g. bacteria, fungi, parasites and viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents an indolicidin analogue. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              leukaemia; poi
breast; lung;
multidrug resi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY91800 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cationic peptide; tumour; pharmaceutical composition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Amino acid sequence of cationic peptide MBI 11B20CN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-JUN-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9965506-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-DEC-1999
                                                                                                                                                                                                                                                                                                   Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Friedland HD,
                               This sequence represents a cationic peptide amino acid sequence, which raths sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour modification of peptides with APO increases their activity against tumour modification of peptides with APO increases their activity against tumour modification of peptides with APO increases
                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 11rwpwwpwrrk----
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                                                                                                                                                                                                                       ب
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      including those with a multidrug resistant phenotype.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27 AA;
                                                                                                                                                                                                                       Page 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polyoxyalkylene-modified;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ovary; cervix; uterus; skin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0096541.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-CA00552
                                                                                                                                                                                                                       94pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 70.18;
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Pred. No. 3.7e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Taylor R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APO; lymphoma; multiple myero
skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Erfle D,
                                                                                                                                                                                                                                                                                                                            optionally activated useful for treating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fraser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   multiple myeloma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer; treatment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
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AAX446X
XX AAX4
XX AAX4
XX AAX4
XX Cro
DT 18-J
DT 18-J
XX Cro
KW STa
KW STa
KW Pro
KW Pro
KW HIV
KW HIV
KW Can
KW 
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lymphoma, leukaemia, multiple myeloma, or tumour
cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY44668 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Poly-(Indol (1-13)-Met-Ala-Arg-Ile-Ala-Met)3 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY44668;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIV-1; gram positive bacteria; gram negative; Staphylococcus aureus; Escherichia coli; Salmonella typhimurium; yeast; fungi; protozoa; Candida albicans; Cryptococcus neoformans; Giardia; Acanthamoeba;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Crosslinked indolicidin analog; X-indolicidin; poly-Indol 1-13; stability; bovine neutrophil; antimicrobial; antibacterial; fun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                stability; bovine neutrophil; antimicrobial; antibacterial; fung protozoacide; virucide; anti-HIV; human immunodeficiency virus-l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
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                                                                                                                                                                                                                                                                                                                       Region
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                                                                                                                                             20-MAY-1999;
                                                                                                                                                                                            23-DEC-1999.
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Selsted ME,
                                                                                              18-JUN-1998;
                                            (REGC ) UNIV
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                                                       CALIFORNIA
  Osapay K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label=
58..59
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                                                                                                      98US-0099631
                                                                                                                                                     99WO-US11165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /label- Enterokinase_cleavage_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label=
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                                                                                                                                                                                                                                                                                                          Hexapeptide_spacer
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Pred. No. 3
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.9e-13;
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CC which is a naturally occurring peptide isolated from bovine neutrophils
CC and has antimicrobial activity. The crosslinked indolicidin
CC (X-indolicidin) analogs are stable and have antimicrobial activity
CC against gram positive and negative bacteria (e.g. Staphylococcus aureus,
CC Escherichia coli and Salmonella typhimurium), yeasts and fungi (e.g.
CC Candida albicans, Cryptococcus neoformans), protozoa (e.g. Giardia
CC Species and Acanthamoeba species), and viruses (e.g. HIV-1).
CC They can be used for reducing or inhibiting the growth or survival of
CC They can be used for reducing or inhibiting the growth or survival of
CC Solution, an inanimate object comprising a surface, or a mammal.
CC The present sequence is a protein comprising three
CC copies of Indol 1-13 each separated by a hexapeptide spacer sequence.
CA recombinant construct encoding this sequence was used for the
CC Expression of Indol-homoserine (Hse) analog. The ability of
CC Indol-Hse analog to maintain antimicrobial activity provides a means to
CC produce X-indolicidin analog precursors in sufficient quantities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7142
                                                                                                                                                                                                                                                                                                                                            Indolicidin analogue; antimicrobial activity; helminth; bacteria; treatment; inhibit growth; micro:organism; contact lens solution; transgenic plant; surgical instrument; yeast; fungi; protozoa.
   Disclosure; Fig
                                WPI; 2000-053028/04.
N-PSDB; AAZ45123.
                                                                                                                                                             (REGC ) UNIV
                                                                                                                                                                                                                          05-MAY-1999;
                                                                                                                                                                                                                                                       18-NOV-1999
                                                                                                                                                                                                                                                                                                                   Synthetic
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                                                                                                                                                                                            12-MAY-1998;
                                                                                                                                                                                                                                                                                     WO9958141-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY57142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY57142 standard; Protein; 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Crosslinked indolicidin analogs with antimicrobial activity against bacteria, yeast, fungi, protozoa and viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-147133/13
N-PSDB; AAZ49764.
                                                                                                                                                                                                                                                                                                                                                                                                             Indolicidin fusion peptide amino acid sequence
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                                                                                                                                                             CALIFORNIA
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                                                                                                                                                                                            98US-0076227.
    6;
                                                                                                                                                                                                                          99WO-US09942
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62pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 58.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -ariamilpwkwpwwpwrr 38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 128; DB 21;
Pred. No. 1.8e-09;
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Best Local :
25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The indolicidin analogues can be used to create a fusion polypeptide consisting of the analogue linked to a peptide. The indolicidin analogues have antimicrobial activity against gram positive bacteria, gram negative bacteria, yeast, fungus, protozoa and viruses (e.g. HIV-1). They are also active against helminths. The analogues can be used for reducing or inhibiting growth or survival of a microorganism. They can be used for treating infections. They can also be included in a liquid such used for treating infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xaa9 = at least one amino acid;
provided that if Xaa1 is present, Xaa8 = Hse, Met or Met-Xaa9-Met;
and further provided that: if Xaa2 is absent, Xaa1 is absent; if Xaa3 is
absent, Xaa1 and Xaa2 are absent; if Xaa4 is absent, Xaa1, Xaa2 and Xaa3
are absent; and if Xaa5 is absent, Xaa1, Xaa2, Xaa3 and Xaa4 are absent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    as water or an aqueous solution, e.g. contact lens solution. The analogues have potential uses in food products, and in objects such as the surface of an instrument used to prepare food or to perform surgery. Transgenic plants or animals useful in the food industry can be produced by introducing a nucleic acid molecule encoding an indolicidin analogue
                                                                                                                                      WO9840401-A2
                                                                                                                                                                                                                  Indolicidin analogue; resistance; cationic peptide; antibiotic; bacterial infection; tolerance; antibacterial; microorganism; bacteria; fungus; parasite; virus.
                                                                                                                                                                                                                                                                                                                                                             AAW66360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xaa4 • Trp, Phe or absent;
Xaa5 • Arg, Lys or absent;
Xaa6 • Trp or Phe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This is the amino acid sequence of an example of a fusion protein which consists of an indolicidin analogue linked to another peptide. Peptides AAY57109-Y57138 and AAY57143-Y57144 are new indolicidin analogues, which have a homoserine residue and/or a truncated amino
                                                                                                     17-SEP-1998
                                                                                                                                                                        Synthetic
                                                                                                                                                                                      Bos taurus.
                                                                                                                                                                                                                                                                                                                           12-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                            AAW66360 standard; peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                   10-MAR-1998
                                                                                                                                                                                                                                                                                         Indolicidin analogue MBI 11A9
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20; Conser
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                                                                                                                                                                                                                                                                                                                           (first entry)
98US-0030619.
97US-0040649.
97US-0915314.
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                                                                   98WO-CA00190
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 128; DB 21;
Pred. No. 1.8e-09;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 63
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PD 23
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Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence represents an indolicidin analogue. The present invention describes compositions and methods for treating infection, invention describes compositions and methods use especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) agent, to overcome: (a) tolerance; (b) acquired resistance; and cationic inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an is tolerant. They can be used for killing e.g. bacteria, fungi, antibiotic agent. They can be used for killing e.g. bacteria,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-SEP-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 multidrug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      leukaemia; polyoxyalkylene-modified;
breast; lung; ovary; cervix; uterus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cationic peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9965506-A2
                                                                                                                                                                                                                                                                                12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                 14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                23-DEC-1999
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les 15; Conserv
                                                                                                                                                                                                                            (MICR-) MICROLOGIX BIOTECH
                                            polyoxyalkylene-modified cationic
                                                                                                                               WPI; 2000-223549/19
                                                                      Novel pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1998-520800/44
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                                                                                                                                                                                   Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tumour; pharmaceutical composition; cancer; treatme
yalkylene-modified; APO; lymphoma; multiple myeloma;
ry; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41.18; 42.98;
                                                      composition containing optionally activated fled cationic peptides, useful for treating
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Pred. No.
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                                                                                                                                                                                          Taylor R,
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                                                                                                                                                                                                       JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treatment;
                                                                                                                                                                                                             West
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                                                                                tumours
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AAY24552
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Best Local 9
       CCCCCCCXXXPPPPPP
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antimicrobial; antibiotic; antiarrythmic; surface disinfectan
additive; shampoo; soap; insecticide; herbicide; preservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-1999
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13-JAN-1997;
21-AUG-1996;
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                                                                                                                                                                                                                                                                                                                        New indolicidin analogues with antimicrobial activity and nucleic acid - vectors, transformed cells and antibodies, conjugates with polyoxyalkylene glycol and fatty acid to receive the confidence of the confide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Erfle D, Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                 Claim 11;
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                                                                                                                                                                                                                                                               Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                 useful therapeutically,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          analogue
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96US-0024754.
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42.98;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Krieger TJ,
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Taylor R,
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5.2e-06;
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Best Local
          from the present invention. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cattionic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity
                                                                                                                                                                       New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW66376 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1\text{-}50~\text{mg/kg}. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical
                                                                                                                                                                                                                                                                                                                                                        25-FEB-1998;
10-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin analogue; resistance; cationic peptide; antibiotic;
bacterial infection; tolerance; antibacterial; microorganism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cationic peptide of claim 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-JAN-1999
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                                                                                                               The present sequence represents a specifically claimed cationic
                                                                                                                                               Claim 15;
                                                                                                                                                                                                                                    WPI; 1998-520800/44.
                                                                                                                                                                                                                                                                                                                             20-AUG-1997;
26-SEP-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus
                                                                                                                                                                                                                                                                                                (MICR-) MICROLOGIX BIOTECH INC
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                                                                                                                                                                                                                                                                 JR,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fungus; parasite; virus.
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97US-0040649.
97US-0915314.
97US-0060099.
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                                                                                                                                             105pp; English.
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tolerant,
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No. 2
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.8e-05;
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Best Local Similarity
                                                                                                                  modutation can be used to pharmaceutical composition can be used to lymphoma, leukaemia, multiple myeloma, or lymphoma, leukaemia, myeloma, or liver and
                                                                                                                                                modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically
                                                                                                                                                                                 This sequence represents a cationic peptide amino acid sequence, can be used in the pharmaceutical composition of the invention. Invention relates to a pharmaceutical composition containing at invention relates to a pharmaceutical composition containing at activated polyoxyalkylene (APO)-modified cationic peptide. The
                                                                                                                                                                                                                                                                              Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cationic peptide; tumour; pharmaceutical composition; cancer; treatme leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     acquired resistance to an antibiotic agent. e.g. bacteria, fungi, parasites and viruses
                                                                                                    Sequence
                                                                                                                                                                                                                                           Disclosure; Page 15; 94pp; English.
                                                                                                                                                                                                                                                                                                                                                             (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                            14-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    multidrug resistance.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Amino acid sequence of cationic peptide MBI 11B16CN
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                      ILRWPWWPWRRKHEAEPEAEPIMILR
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            16;
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                                                                                                      ΑĄ;
                                                                                                                                                                                                                                                                                                                                        Krieger
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                                                       39.2%;
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 -imilk 17
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No. 2
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es 0;
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RESULT 1

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Where Z = p or V; X = hydrophobic residue, preferably W; B = basic aa, or controlled the set of th
                                                                                                                    Query Match
Best Local Similarity
Matches 12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1998-169090/15
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21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-FEB-1998.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 11; Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        food; technical material
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                                                                                                                                                                                                                                                                                                                                                             materials. The analogues are administered by injection, lavage, or topically, generally at 0.1\text{-}50~\text{mg/kg}. These analogues have a spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as composite to the spectrum of activity than indolicidin and modification as a spectrum of the spectrum of the spectrum of activity than indolicidin and modification and modification and modification and modification activity.
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   ilrwpwwpwrrk 12
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                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                    toxicity.
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96US-0024754.
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Pred. No.
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                                                                                                                              Mismatches
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RESULT
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of anionic peptide sequences in the linker sequences neutralises the positive charge of the cationic peptide so that the charge of the fusion protein is controlled. This cassette allows high yield, stable production of the cationic peptide. Cationic peptides such as bovine indolicidin may be used as antimicrobial agents. The present sequence is the MBI-11B7 peptide. MBI-11B7 is a cationic peptide derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A novel method allows the efficient production of cationic peptides in recombinant host cells. The method involves construction of a multi-domain fusion protein expression cassette comprising a promoter and a nucleic acid molecule expressed as an insoluble protein. The inclusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cellulose binding domain; CBD; MBI-11B7; indolicidin; bovine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Multi-domain fusion protein expression cassette used stable production of foreign peptide gene products -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MBI-11B7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-NOV-1999;
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Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                                                                                     06-JUN-2000
                                                                                                                                                           AAY91791;
                                                                                                                                                                                                 AAY91791 standard;
                                                                                 Amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        from modifications of indolicidin.
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                                                                                                                                                                                                                                                                                                                                1 ILRWPWWPWRRK 12
                                                                                                                                                                                                                                                                                          l Similarity
12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide derived from indolicidin.
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                                                                               sequence
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                                                                                                                     (first entry)
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                                                                                                                                                                                                   Peptide;
                                                                               of cationic peptide MBI 11B7CN.
                                                                                                                                                                                                                                                                                                                                                                                          37.2%;
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                                                                                                                                                                                                                                                                                                                                                                                          Score 86;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                        DB 21; I
. 5.5e-05;
ches 0;
                                                                                                                                                                                                                                                                                                                                                                                                              Length 12;
                                                                                                                                                                                                                                                                                                                                                                            Indels
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                                                                                                                                                                                                                                                                                                                                                                            0;
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AAW12882
                                                                                                                                                                                                                                                                                               RESULT
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9965506-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              multidrug resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Friedland HD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-JUN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                         Bacterial; viral; antitumour; food; preservative; inhibitor; growth; bacterium; yeast; endotoxaemia; sepsis; antibiotic; fungal; antiviral; Candida albicans; sterilant; Salmonella; Yersina;
                                                                                                                                                                                                                                                   AAW12882
                                                                                                                                                                                                                                                                          AAW12882 standard; peptide;
                                                                                                                                                                                                        Antimicrobial
                                                                                                                                                                                                                             10-DEC-1997
                                                                                                                                                        bacterium; yeast; e
antiviral; Candida
                                                                            06-MAR-1997
                                                                                                   WO9708199-A2
                                                                                                                       Synthetic.
                                                                                                                                               Shigella.
                                                        23-AUG-1996;
          (UYBR-) UNIV BRITISH COLUMBIA
                                  23-AUG-1995;
                                                                                                                                                                                                                                                                                               13
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                                                                                                                                                                                                                                                                                                                                          l Similarity 100
12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 14; 94pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                     12
                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                      AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Krieger
                                                                                                                                                                                                     cationic peptide SEQ ID NO:11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0096541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-CA00552
                                  95US-0002687
                                                          96WO-IB00996
                                                                                                                                                                                                                                                                                                                                                                                          37.2%;
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                                                                                                                                                                                                                                                                                                                                                                                          Score 86; DB 21;
Pred. No. 5.5e-05;
                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                optionally activated useful for treating tumours
                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                       Length 12;
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                                                                                                                                                                                                                                                                                                                                                                                    0
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                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents a specifically claimed novel isolat cationic peptide which has antimicrobial activity. The amino acid sequence of antimicrobial cationic peptides (including the present sequence) is selected from: XIXIPPOXXX3X2PPO(XXZ2PPO)XXX3(X5)0; sequence) is selected from: XIXIPPOXXX3X2PPO(XXZ2PPO)XXX3(X5)0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cationic peptide(s) having anti-microbial activity - used for the inhibition of bacterial and viral growth, as an antitumour agent,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Falla TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 2; Page 66; 89pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and as a food
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1997-179179/16
                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                18-AUG-1999
                                                                                                                                                                                AAY24553;
                                                                                                                                                                                                 AAY24553 standard; peptide;
                                                                                                    Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative; food; technical material.
                                                                                                                                              Indolicidin analogue #5.
                                                                                   Synthetic
        13-JAN-1997;
21-AUG-1996;
                                                                   WO9807745-A2
                                   21-AUG-1997;
                                                   26-FEB-1998
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                                                                                                                                                                                                                                                                                                                         16 AA;
                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             preservative
                                                                                                                                                                 (first entry)
          97US-0034949.
96US-0024754.
                                   97WO-US14779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hancock REW;
                                                                                                                                                                                                                                                                                        37.2%;
                                                                                                                                                                                                     20
                                                                                                                                                                                                                                              wpwwpwrr 16
                                                                                                                                                                                                                                                                                         Score 86; DB 18;
Pred. No. 7.6e-05;
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                                                                                                                                                                                                                                                                                   0;
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(MICR-) MICROLOGIX BIOTECH INC

West MH

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AAY91797
ID
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CC (V), LBBAXZXXXXR (VI), LKAXZXXXRRK (VII) and BXZXXZXBBB (VIII).

CC (Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, CC (II), at least 2 X = F or Y. The analogues are used to treat CC in (VIII) at least 2 X = F or Y. The analogues are used to treat CC (infections caused by bacteria (Gram positive or negative, or anaerobic); CC (trematodes) or viruses. Typical of very many pathogens that can be CC (controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola CC (active), Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds CC (also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are CC (asp, la se surface Adiafractarta as addition to abamboon or coans. As
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Query Match
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Matches 12; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 11; Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1998-169090/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically generally at 0.1-50 mg/Kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY91797 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           reduces their toxicity.
                                                                                                                                                                                                                                      Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; multidrug resistance.
                                                                                                                                                                                                                                                                                                                                                                             06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                               AAY91797;
                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                        Amino acid sequence
                                                                                                                                                                     WO9965506-A2
               (MICR-) MICROLOGIX BIOTECH INC
                                                                                            14-JUN-1999;
                                                                                                                               23-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ILRWPWWPWRRK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                         98US-0096541.
                                                                                            99WO-CA00552
                                                                                                                                                                                                                                                                                                                                        of cationic peptide MBI 11B17CN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37.2%; Score 86; DB 19; 1
100.0%; Pred. No. 9.7e-05;
Live 0; Mismatches 0;
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Query Match
Best Local Similarity
Matches 12; Conserv
                                                                                                             This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                      Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours
                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-223549/19
                                                                                                                                                                                                                                                                                                                                                                                                                           Friedland HD,
                                                                                                                                                                                                                                                                                       Disclosure; Page 15;
                                                                                   Sequence
                                                                                       20 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                             Krieger TJ,
                      37.2%;
                                                                                                                                                                                                                                                                                            94pp;
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                        Score 86;
Pred. No.
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                          DB 21; 1
9.7e-05;
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                                         Length 20;
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Search completed: June 21, 2001, 08:38:29 Job time: 266 sec

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1 ILRWPWWPWRRK

Conservative

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Mismatches

0

Gaps

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41, Appl 52, Appl 35, Appl 2, Appli 12, Appli

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OM protein - protein search, using sw model
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Maximum Match 100%
Listing first 45 summaries
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and is derived
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seg length: 2000000000
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Copyright (c) 1993 - 2000 Compugen Ltd
ILRWPWWPWRRKHEAEPEAEPIMILRWPWWPWRRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/BCTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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US-08-915-314-76
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US-08-915-314-76
US-08-915-314-78
US-08-915-314-89
US-08-915-314-63
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US-08-915-314-46
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Patent No. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL
                                                  Query Match
Best Local :
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4444433333333328
5443210
                                      Matches
                                                                                                                                                                     TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: West, Michael H.P.
APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
TITLE OF INVENTION: COMPOSITIONS AND
TITLE OF INVENTION: INFECTIONS USING
                                                                                                                                                                                                                                         CURKENT AFFECTION COUNTERS US/08/915,314
APPLICATION US/08-1997
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
NAME: NO. 6180604tenburg 93,317
REGISTRATION NUMBER: 39,317
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Seattle
STATE: Washingt
COUNTRY: USA
ZIP: 98104
                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Relace
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                                                Local
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             1 ILRWPWWPWRRKHEAEPEAEPIMILR 26
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16; Conserv
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                                                                                                                                                amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6300 Columbia
                                                                                                                                                              21 amino
                                        Conservative
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                                                                                                                                                                                                                 (206)
                                                                                                                       linear
                                                                                                                                                               acids
                                                                                                                                                                                                                 622-4900
                                                      39.2%;
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US-08-915-314-52
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US-08-915-314-83
US-08-915-314-84
US-08-915-314-84
US-08-915-314-87
US-08-915-314-39
US-08-915-314-74
                                         Score 90.5; DB 4;
Pred. No. 9.1e-06;
1; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                          Version
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ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                          #_
                                                                     Length 21;
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Score

90

78 77.5 77.5 77.7

9

Gaps 5

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scoring table: Sequence: Title: Perfect score:

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\$ 56, Appl \$ 40, Appl \$ 90, Appl \$ 44, Appl \$ 79, Appl \$ 81, Appl \$ 82, Appl \$ 82, Appl \$ 84, Appl \$ 89, Appl \$ 89, Appl \$ 5, Appl \$ 5, Appl \$ 6 1, Appl \$ 6 1, Appl

Sequence Sequence 9::

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                                                                                                                                                                                                                                                                                                                                                             Query Match 37.7
Best Local Similarity 100
Matches 12; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (206) 682-60.
NFORMATION FOR SEQ ID NO:
                                                                                                                                                              ENERAL INFORMATION:
                                                                                                                                                                               tent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/ACENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
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TTY: Seattle
                                CORRESPONDENCE ADDRESS
                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
                                                                   TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                         1 ILRWPWWPWRRK 12
               DDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ICANT: Taylor, Kobert
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6180604
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                                                                                                                                                                                                Application US/08702054B
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                                                                                                       Hancock, Robert E. W. Gough, Monisha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
4225 Executive Square, Suite 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ridser,
                                                                                                                                             Falls, Timothy J.
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                Fish & Richardson P.C
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                                                                     ANTIMICROBIAL CATIONIC PEPTIDES
AND METHODS OF SCREENING FOR THE SAME
                                                                                                                                                                                                                                                                                                                                                                                 37.2%; Score 86; 100.0%; Pred. No.
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Best Local Similarity
Matches 13; Conserv
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               COMPUTER: IBM PC. Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REGISTRATION NUMBER: 39,317
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SOFTWARE: FastSEQ for Windows Version 2.0b
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/702,054B
FILING DATE: 23-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
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APPLICATION NUMBER: 60/002,687
APPLICATION NUMBER: 60/002,687
EILING DATE: 23 AUG-195
ATTORNEY/AGENT INFORMATION:
NAME: Halle, Lisa A.
REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 07420/013001
                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                   ITLE OF INVENTION:
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                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                            ADDRESSEE: SEED and BEKKI LL.
STREET: 6300 Columbia Center, 701 Fifth Avenue
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Erfle, Douglas
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          West, Michael H.P
                                                                                                                                                                                                                                                                                                                                                                                                                                          Krieger, Timothy J.
Taylor, Robert
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41.9%;
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   660081.405
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Pred. No. 2.5e-0
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TELEPHONE:

(206) 622-4900

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Best Local Similarity
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                                                                                                                                                                                                             NFORMATION FOR SEQ ID NO:
                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 21 amino acids
                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: Seattle
                                                                                                                                                     TYPE: amino acid STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/0 FILING DATE: 20-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                   Local Similarity
                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Krieger, L. Robert
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Erfle, Douglas
                                                                                                                                                                                                                           (206) 682-6031
                                                     Conservative
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                                                                                                                                         linear
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                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
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100.08;
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100.0%;
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                                                                   Score 86; DB 4; Pred. No. 3.4e-
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Pred. No.
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                                                                   3.4e-05;
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                                                                                                                                                                                                                     Sequence 40, Approximately No. 6180604
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence 38, Application US/08702054B
Patent No. 6191254
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Best Local
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INFORMATION FOR SEQ ID NO:
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                                                                                                          APPLICANT: Fraser, June 1 H.P. APPLICANT: West, Michael H.P. APPLICANT: Krieger, Timothy J. APPLICANT: Taylor, Robert APPLICANT: Erfle, Douglas COMPOSITI(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 23-AUG-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: FastSEQ for 1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
                                                                                    TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: peptide
                                                                      NUMBER OF SEQUENCES:
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Local Similarity 36.4%;
nes 12; Conservative
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OPERATING SYSTEM: Windows 95
SOFTWARE: FastSEQ for Windows Version 2.0b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 4225 E:
CITY: La Jolla
STATE: CA
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FILING DATE: 23-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 92037
ADDRESSEE: SEED and שבינות
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                           4 KWPW----
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                                                                                                                                                                                                                                                                                                                                                                         3 RWPWWPWRRKHEAEPEAEPIMILRWPWWPWRRK 35
                                                                                                                                                                                                              INFORMATION:
                                                                                                                                                                                                                                                 Application US/08915314
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Falls, Timothy J. Hancock, Robert E. W.
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                                                                                    CÓMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
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Pred. No. 4.6e-05
1; Mismatches
                                                                                                                                                                                                                                                                                                                                           WPWWPWRRK 16
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Best Local Similarity
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NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604 tenburg ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
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APPLICANT: Taylor, Robert
APPLICANT: Erile, Douglas
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                  APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997 CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                 ZIP: 98104
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION:
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(206)
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682-6031
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91.7%;
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    Mismatches

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Pred. No. 4.5e-05;
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RESULT 10
US-08-915-314-87
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Best Local (
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT
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                                                                                                               Matches
                                                                                                                                         Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENERAL INFORMATION:
                                                                                                                                                                                                                                                                          TELEFAX: (206) 682-6031 NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
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                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Seattle
STATE: Washing
                                                                                                                             Local Similarity
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Pred. No.
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                                                                                                                                              DB 4;
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MEDIUM TYPE:

Floppy disk

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Patent No.
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                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
CLASSIFICATION: 424
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                                                                                                          CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                          TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING INTELLIBRICATIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
COMPUTER READABLE FORM:
                                                                                                                             NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: No. 6180604tenburg Ph.D., Carol
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                                                CITY:
                                                                            STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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                               COUNTRY:
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                                                                                           ADDRESSEE:
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                                           Seattle
Washington
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                                                                            6300 Columbia Center, 701 Fifth Avenue
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Erfle, Douglas
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West, Michael H.P.
                                                                                                                                                                                           Krieger, Timothy J. Taylor, Robert
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                                                                                             SEED and BERRY LLP
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Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Vei
CURRENT APPLICATION DATA:
Application NUMBER: US/08/915,314
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Best Local Similarity
Matches 11; Conserv
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                              TELEFAX: (206) 682-6031 NO:
                                                                                                                  CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
                                                                           REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                             REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: 20-AU
                                                              TELEPHONE:
                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: 20-AU
                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                          6300 Columbia Center, 701 Fifth Avenue
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12 amino acids
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Erfle, Douglas
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                                                               (206) 622-4900
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91.7%;
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Pred. No. 0.
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Fraser, Janet R.

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US-08-915-314-38
; Sequence 38, Application US/08915314
; Patent No. 6180604
; GENERAL INFORMATION:
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Sequence 86, APP-
100, 6180604
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Best Local Similarity
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Best Local Similarity
Matches 11; Conserv
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                                                                                                                                                                                                                                                                                                                  TELEFAX: (206) 682-603
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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                                                                                                                                                                                                                                                                        TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/0
FILING DATE: 20-AUG-1997
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Taylor, Robert
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ichael H.P.
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Pred. No.
                                                                                                                                                                                   Score 80; I
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US-08-915-314-80
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COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGFNT
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                                                                                                                                                                                                                                                                                                                                                      Sequence 80,
COUNTING COUNTING COUNTING SIP: 98104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
TYPHTER: TEMPE PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                      atent No.
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NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS
LENGTH: 13 amino acid:
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                                                                                                                                                                                             TUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                               ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ILRRWPWWPWRRK 13
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hes 10; Conserv
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STATE: Washington
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                                                                                                                                CITY: Seattle
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                                                                                                                                                                                                                                                                                                                         INFORMATION:
                                                                                                                 Washington
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                                                                                                                                               6300 Columbia Center, 701 Fifth Avenue
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OR SEQ ID NO:
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Taylor, Robert
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                                                                                                                                                                                                             INFECTIONS
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                                                                                                                                                                                                             COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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0.00016;
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SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D. Carol
REGISTRATION UNBER: 39,317
REFERENCE/DOCKET NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 4900
TELEPHONE: (206) 662-4900
TELEPHONE: (206) 662-6031
INCORMITION FOR SEQ ID NO. 800:
SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: Amino acids
TYPE: Amino acids
STRANDEDNESS:
TOPOLOGY: linear
US-08-915-314-80

Ouery Match
Best Local Similarity 91.7%; Pred. No. 0.00019;
Matches 11: Conservative 0; Mismatches 1; Indels 0; Gaps 0;

1 ILRNPWMPWRRK 12
Db 1 ILRNAWMPWRRK 12
Search completed: June 21, 2001, 08:38:58
JOB time: 215 sec
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
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OM protein - protein search, using sw model

Run on: June 21, 2001, 08:36:54 ; Search time 29.25 Seconds (without alignments) 91.149 Million cell updates/sec

Title: Perfect score: SCHNIZ-444-MODSEQ2B.PEP 231

Sequence: 1. ILRWPWWPWRRKHEAEPEAEPIMILRWPWWPWRRK 35

Scoring table:

BLOSUM62 Gapop 10.0., Gapext 0.5

Searched: 219241 seqs, 76174552 residues

Total number of hits satisfying chosen parameters: 219241

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : PIR\_68:\* pir1: \* · pir2: \* · pir3: \* · pir4: \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result

RESULT 2.
T72925
hypothetical protein C50F7.8 - Caenorhabditis elegans
C;Species; Caenorhabditis elegans
C;Species: Cot-1999 #sequence\_revision 15-Oct-1999 #text\_change 15-Oct-1999
C;Accession: T72925
C;Accession. D.; Stellyes, L.
Submitted to the EMBL Data Library, November 1995
A;Description: The sequence of C. elegans cosmid C50F7.

4 4 4 3 5 4 4 3	410	338 38 39	3 3 3 6 5 4	30 31 33
	552			552.55
22.5 22.5 5	22.5 22.5	22.5 22.5	22.5 22.5 22.5	22.7 22.7 22.7 22.7 22.7
376 404 420	287 287 356	253 276 282	120 145 229	452 478 824 1016
NNN	202	N N N	N N N	H N N N
T26075 T05556 A45166	F65165 H86040 S74766	G70715 B83161 A75473	H70817 T49102 S60454	T28094 A83368 B38423 S40838
hypothetical prote pectate lyase (EC protein-lysine 6-o	<pre>33.2 kD protein in . probable alpha hel hypothetical prote</pre>	hypothetical prote probable short-cha probable sigma fac	hypothetical prote hypothetical prote glucose starvation	hypothetical prote hypothetical prote protein glutamine formate dehydrogen

# ALIGNMENTS

Best Local Similarity 69.2%; Pred. No. 0.052; Matches 9; Conservative 2; Mismatches 2; Indels 0; Gaps 0;  Qy 22 IMILRWPWWPWRR 34  : :        Db 131 ILPWKWPWWPWRR 143	eutrophils ed from NCBI backbone (NCBIP ed from NCBI backbone (NCBIP cystatin homology boxyl end quence #status predicted <si <cys="" homology="" n=""> ide #status predicted <pro> icidin #status experimental dated carboxyl end (Arg) (am</pro></si>	RESULT 1  JC1222 Indolicidin precursor - bovine N;Alternate names: antimicrobial peptide C;Species: Bos primigenius taurus (cattle) C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999 C;Accession: JC122; A42387; S25664 R;Gel Sal, G,; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. R;Gel Sal, G,; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. R;Gel Sal, G,; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. R;Gel Sal, G,; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. R;Gel Sal, G,; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. R;Gel Sal, G,; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. R;Gel Sal, G,; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. R;Gel Sal, G,; Storici, P.; Schneider, C.; Romeo, D.; Zanetti, M. R;Cession: JC1222; MUID:92392368 A;Accession: JC1222; MUID:92392368 A;Accession: JC1222; MUID:92392368 A;Experimental source: bone marrow R;Selsted, M.E.; Novotny, M.J.; Morris, W.L.; Tang, Y.Q.; Smith, W.; Cullor, J.S. A;Title: Indolicidin, a novel bactericidal tridecapeptide amide from neutrophils. A;Roccession: A42387
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A;Reference number: 220601
A;Accession: T29295
A;Status: preliminary; translated
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein F5D14.5 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Mar-2001 C;Accession: E86447
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W. A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis. A;Reference number: A86141; MUID:21016719

A;Accession: E86447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C. C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Theologis, A.; Ecker, J.R.; Palm, Chin, C.W.; Chung, M.K.; Conn, L.; ansen, N.F.; Hughes, B.; Hulzar, L. Nature 408, 816-820, 2000
                                                                                                                                                                                                                                                                                                         RESULT
C40046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-95 <STO>
                                                                                                                                                                                                                                            antiblotic transport-associated protein actII-3 - 9 C; Species: Streptomyces coelicolor C; Date: 30-Jun-1992 #sequence_revision 30-Jun-1992
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                                                                                                                                 Cell 66, 769-780, 1991
A;Title: The act cluster contains regulatory and antibiotic A;Reference number: A40046; MUID:91347376
A;Accession: C40046
                                                                                                                                                                                                        C;Accession: C40046
R;Fernandez-Moreno, M.A.; Caballero,
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                                                                       A;Cross-references: GB:M64683; NID:g153143; PIDN:AAA26691.1; PID:g153146
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Residues: 1-111 <JOH>
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Best Local Similarity 61.1
Matches 8; Conservative
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                                                                                             Molecule type: DNA Residues: 1-711 <FER>
Query Match
Best Local Similarity
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 25.3%;
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 Score 58.5;
Pred. No. 9
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                                                                                                                                                                                                              J.L.; Hopwood, D.A.; Malpartida, F.
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9.5;
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                       Length 711;
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         genome polyprotein - encephalomyocarditis virus N;Contains: coat protein VP1; coat protein VP2; EC 3.4.-.-); RNA-directed RNA polymerase (EC 2.7
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GNNYE RESULT

in VP2; coat protein VP3; coat protein VP4; (EC 2.7.7.48)

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probable outer membrane protein PA1048 [imported] - Pseudomonas aeruginosa C;Species: Pseudomonas aeruginosa C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000 C;Accession: E83513 R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hick adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Lari ; Lory, S.; Olson, M.V. Nature 406, 959-964, 2000
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A;Residues: 1-293 <STO>
A;Cross-references: GB:AE004537; GB:AE004091; NID:g9946960; PIDN:AAG04437.1;
A;Experimental source: strain PAO1
C;Genetics:
A;Gene: PA1048
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                                                                                                                                   C;Species: Synechocystis sp.
A;Variety: PCC 6803
C;Date: 25-Apr-1997 #sequence_revision 25-Apr-1997
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A; Accession: S74708
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                                                                                                                                                                                                                                                                             DNA Res.
                                                                                                                                                                                                                                                                                                            R; Kaneko, T.; Sato,
                                                                                                                                                                                                                                                                                                                          C; Accession: S74708
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Best Local S
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Matches 10
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K.; Okumura, S.; Shimpo, S.;
R Res. 3, 109-136, 1996
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 PWDQWGLWALSGLGLVIWRWRRRHHAPPEQKQML
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11; Conserv
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                                --WPWRRKHEAEPEAEPIM 23
                                                                             24.98;
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                                                                                                                                                                                                                                                                                               H.; Tanaka, A.; Asamizu, Takeuchi, C.; Wada, T.; V
                                                                                                                                        ; GB:AB001339;
was submitted
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Pred. No. 4.4;
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Pred.
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Mismatches
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                                                                                                                                                                                                                                                                  the unicellular cyanobacterium Synechocys
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                                                                                                                                          NID:g1651897; PIDN:BAA16859.1; PID:d101 to the EMBL Data Library, June 1996
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da, M.; Yas
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A;Title: Comparison of whole genome sequences of chlamydia pneumoniae J138
A;Reference number: A86491; MUID:20330349
A;Accession: H86543
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A; Residues: 1337-1396, 'L', 139
A; Cross-references: GB: M54935
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A;Title: The nucleotide and deduced amino acid sequences of the encephalomyocarditis vii A;Reference number: A03906; MUID:84169586
A;Accession: A03906
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A; Note: host Homo sapiens (man)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Note: the authors translated the codon CAU for residue 713 as Thr and AAC for residue C;Superfamily: foot-and-mouth disease virus genome polyprotein
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                                                                                                                                                                                                                                                                              Cross-references: GB:BA000008; NID:g8978798; PIDN:BAA98634.1; GSPDB:GN00142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shirai, M.;
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392-622/Product: coat protein VP3 #status predicted <VP3>
623-910/Product: coat protein VP1 #status predicted <VP19
911-1056/Product: core protein P2-A #status predicted <P2A>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Keywords: coat protein; core protein; genome-linked protein; hydrolase; nucleotidyltr: 1-67/Domain: leader peptide #status predicted <LDP>
68-136/Product: coat protein VP4 #status predicted <VP4>
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626-1830/Product: proteinase #status predicted <PTS>
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138
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                                               4 WPWWPWRRKHEAEPEAEPIMIL
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WPWLPKKRQIEKLPKGEGICFL
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                                                                                                                            Similarity
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159
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Pred. No.
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Pred. No. 55;
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Query Match
Best Local Similarity
"hehes 8; Conserv
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A;Accession: D72081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae
C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 11-May-2000
                                                                                                                                                                  A; Map position:
A; Introns: 154/1
                                                                                                                                                                                                       A; Gene: NCSP:B12F1.110
                                                                                                                                                                                                                                        A; Experimental source:
                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-288 <SCH>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:AE002195; GB:AE002161; NID:g7189246; PIDN:AAF38182.1; PID:g7
A;Experimental source: strain AR39, HL cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-192 < REA>
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A; Residues: 1-192 <ARN>
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Nature Genet. 21, 385-389, 1999
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                                                                                                                                                                                                                                                                                                                                                      A;Reference number: Z25286
                                                                                                                                                                                                                                                                                                                                                                                                                                                hypothetical protein B12f1.110 [imported] • Neurospora crassa
C;Species: Neurospora crassa
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                                                                                                                                                                                                                                        Cross-references: EMBL:AL390091; GSPDB:GN00116; NCSP:B12F1.110 Experimental source: BAC clone B12F1; strain OR74A
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Best Local Similarity
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                             13 HEAEPEAEPIMILRWP 28
58
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HEPHPESHPILVQYWP
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Pred. No.
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C;Species: Synechocystis sp.
A; Variety: pCC 6803
C;Date: 25-Apr.1997 #sequence_revision 25-Apr.1997 #text_change 08-Oct-1999
C;Date: 25-Apr.1997 #sequence_revision 25-Apr.1997 #text_change 08-Oct-1999
C;Accession: S75842
R;Kancko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miyajima, N.; R;Rancko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasudio, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yanaba, M.; Yasudio, M.; Yasudio
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A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June 1996
C;Superfamily: RNA polymerase sigma factor interaction domain homology
F;159-366/Domain: RNA polymerase sigma factor interaction domain homology <SFI>
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A; Residues: 1-835 <K
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A;Accession: S75842
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A;Accession: $35961
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capsid polyprotein precursor - encephalomyocarditis virus, EMCV
C;Species: encephalomyocarditis virus, EMCV
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
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A;Title: Complete nucleotide sequence of a A;Reference number: S30400; MUID:93106972 A;Accession: S30401 A;Molecule type: DNA A;Residues: 1-451 <MUX>
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                                                                                                                                                      R; Wu, X.; Roy, K.L.
J. Bacteriol. 175, 37-52,
                                                                                                                                                                                                                                                                                                       hypothetical protein
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Best Local :
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                                                                                                                                                                                                                                        Species: Streptomyces clavuligerus;Date: 30-Apr-1998 #sequence_revision
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Best Local
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                                                                                                                                                                                                                                                                                                          2 - Streptomyces clavuligerus plasmid pSCI
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85;
                                                                                                                                       linear plasmid
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β δ

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PTRPTRLRREAEPEAEP

21 42

5 PWWPWRRKHEAEPEAEP

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A;Cross-references: EMBL:x54107; NID:g48758; PIDN:CAA38041.1; PID:g581632 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Genome: plasmid pSCL
A;Start codon: GTG
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A;Title: Complete genome sequence of an aerobic hyper-thermophilic A;Reference number: A72450; MUID:99310339

A;Accession: E72532
                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; MOLECULE 'L'P' - KAW'
A; Residues: 1-134 < KAW'
A; Cross-references: DDBJ:AP000063;
A; Cross-references: strain Kl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    awa, H.; Takamiya, M.; Masuda,
                                                                                                                                                                                                                                                                                                                                                                                                                       A;Gene: APE2233
C;Superfamily: Aeropyrum pernix hypothetical protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Kawarabayasi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type:
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                                                                                                                                                                                                                                                                                                                             δ
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C;Species: Apis mellifera (honeybee)
C;Date: 03-Feb-1994 #sequence_revision
                                                                                                                                                                                                                                                  S35331
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Matches
                                                                                                                            A; Title: Apidaecin multipeptide precursor A; Reference number: S35330; MUID:93223697 A; Accession: S35331
                                                              A;Cross-references: EMBL:X72576;
C;Superfamily: procyclic acidic
                                                                                                                                                                                             C; Accession: S35331
                                                                                        A; Molecule type: DNA
A; Residues: 1-144 <CAS>
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Matches 14; Conservative
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Pred. No. 19;
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T.; Kudoh, Y
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Search completed: June 21, 2001, 08:39:31 Job time: 157 sec

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231
1 ILRWPWWPWRRKHEAEPEAEP1
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P23839 escherichia
Q05063 gallus gall
O04928 a phosphati
P48300 canis famil
            Q02405 bacteriopha
P46817 mycobacteri
Q08129 mycobacteri
Q06602 apis mellif
P51761 rhodocyclus
P51763 chromatium
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Q04891 mus musculu
Q22549 caenorhabdi
P23422 visna lenti
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P21689 pseudomonas
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P23606 rattus norv
P32176 escherichia
                                                                                                                                                                                                                                                                                                   P15423 human coron
P17593 encephalomy
P17594 encephalomy
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Q9v589 drosophila
P15423 human coron
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P03304 encephalomy
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448   FD6C_ARATH 443   FD6C_BANA 443   FD6C_BANA 79   YYAO_BACSU 126   YD43_MYCTU 196   YAO5_SCHPO 413   YYAO5_SCHPO 413   YYAO5_SCHPO 413   TYRO_HUMAN 529   TYRO_HUMAN 888   UFO_MOUSE 1790   SEPA_EMENI 168   AP14_APIME 305   RCEM_RHORU 492   ADRO_BOVIN	1 FB6C_ARACH P46312 1 FD6C_BRANA P48627 1 YYAO_BACSU P37509 1 YAO_BACSU Q11013 1 YAO5_SCHPO Q09677 1 YBHO_ECOLI P75771 1 TYRO_HUMAN P14679 1 UFO_MOUSE Q00993 1 SEPA_EMENI P78621 1 RCEM_RHORU P10718 1 RCEM_RHORU P08165	21.2
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Cell 66:769-780(1991)
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NCBI_TaxID=1902;
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                 RWPWWPWRRKHEAEPEAEPIMILRWPW
RWVFWPARPKHGTEPD----VTRGLW 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ILPWKWPWWPWRR 143
                                                                                                        Similarity
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                                                                                                                                                                                                                                                                                                                                                                               no M.A., Caballero J.L., Hopwood D.A., Malpartida I er contains regulatory and antibiotic export genes, for translational control by the bida tRNA gene of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        39,
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                                     Score 58.5; E
Pred. No. 3.8;
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ANIDATION (G-144 PROVIDE AMIDE GROUP).
; E3B1CBBE55C09911 CRC64;
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Pred. No. 0.023;
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21-JUL-1986 (Rel. 01, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
15-DEC-1998 (Rel. 37, Last annotation update)
GENOME POLYPROTEIN [CONTAINS: COAT PROTEIN YP1 TO VP4; CORE PROTEIN P2A TO P2C, P3A; GENOME-LINKED PROTEIN YPG; PICORNAIN 3C
(EC 3.4.22.28) (PROTEASE 3C) (P3C); RNA-DIRECTED RNA POLYMERASE P3D
                                                                                                                                                CHAIN
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CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "The nucleotide and deduced amino acid sequences of the encephalomyocarditis viral polyprotein coding region.";

Nucleic acids Res. 12:2969-2985(1984).

-I- FUNCTION: P3C POLYPEPTIDE IS A PROTEASE THAT CLEAVES AT CERTAI O/G SITES IN THE POLYPROTEIN. IT MAY BE A CYSTEINE PROTEASE.

-I- SUBUNIT: THE VIRUS CAPSID IS COMPOSED OF 60 ICOSAHEDRAL UNITS, SUBUNIT: THE VIRUS CAPSID OF ONE COPY EACH OF PROTEINS VP1, VF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POLG_EMCV
P03304;
                                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00680; RNA_dep_RNA_pol; 1. Pfam; PF00910; RNA_helicase; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; X00463; CAA25152.1; -. PIR; A03906; GNNYE. HSSP; P12296; 1MEC. MEROPS; C03.009; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                               RNA-directed RNA polymerase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00073; rhv; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR000605; -. InterPro; IPR001205; -. InterPro; IPR001676; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VP3, AND VP4.

-I- PTM: SPECIFIC ENZYMATIC CLEAVAGES IN VIVO YIELD MATURE PROTEINS
-I- SIMILARITY: THE PROTEASE BELONGS TO PEPTIDASE FAMILY C3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Palmenberg A.C., Kirby E.M., Janda M.R., Drake N.L., Duke Potratz K.F., Collett M.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cardiovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE-84169586; PubMed-6324136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEROPS; U29.001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=12104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viruses; ssRNA positive-strand viruses, no DNA stage; Picornaviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Encephalomyocarditis virus.
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                         PROTEASE
                                                PROTEASE (POTENTIAL).
                                                                       GENOME-LINKED PROTEIN VPG (H).
PICORNAIN 3C (P22).
RNA-DIRECTED RNA POLYMERASE P3D
MYRISTATE (BY SIMILARITY).
                                                                                                                                                                                                                     CORE PROTEIN P2A
                                                                                                                                                                                                                                                                     COAT PROTEIN VP3
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COAT PROTEIN VP2
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'EASE (POTENTIAL).
26BC81BB7CF68CB5 CRC64;
                                                                                                                                                                       PROTEIN P2C
PROTEIN P3A.
                                                                                                                                                                                                                                                                                                                      PROTEIN VP4 (RHO). PROTEIN VP2 (BETA).
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Query Match Best Local Similarity

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-90005446; PubMed-2676519; Casteels P., Ampe C., Jacobs F., Vaeck M. "Apidaecins: antibacterial peptides from EMBO J. 8:2387-2391(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE-93223697; PubMed-8467807;
MEDLINE-93223697; PubMed-8467807;
Casteels P., Tempst P.;
"Apidaecin multipeptide precursor structure: a putative mechanism amplification of the insect antibacterial response.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Apis mellifera (Honeybee).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata;
Apoidea; Apidae; Apis.
NCBI_TaxID=7460;
                                                                                                                                                                                                                                                                                                                                                         modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                              PEPTIDE
                                                                                                                                                                                                                                                                                 PIR; S05383; S05383.
PIR; S06675; S06675.
PIR; S35331; S35331.
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PIR; S05383;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Hemolymph;
MEDLINE-90005446;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE (APIDAECINS IA/IB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ЕМВО J. 12:1569-1578(1993).
                                                                                                                                                                                                                                                           Pfam; PF00807;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     965
                                                                                                                                                                                                                                                nsect immunity;
                                                                                                                                                                                                                                                                       nterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: APIDAECINS HAVE BACTERICIDAL ACTIVITY; PREDOMINANTLY AGAINST GRAM-NEGATIVE BACTERIA. THEY SEEM TO INTERFERE WITH CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROPAGATION.
                                                                                                                                                                                                                                                                                                                                                                                                           SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RAPWNPWKNTYQAVLRAEPCRVTMDIYYKRVRPFRLPLVQKEWPVREE 1012
PTRPTRLRREAEPEAEP
                       PWWPWRRKHEAEPEAEP 21
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                                                                                                                                                                                                                                                                                                                        X72576; CAA51168.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14;
                                                         Similarity
                                                                                                                                                                                                                                   on
                                                                                                                                                                                                                                                                                                                                                                       non-profit institutions as long and this statement is not removed
                                                                                                                                                                                                                                                                        IPR001979; -
                                                                                                                                                                                                                                                                                                                                               email to license@isb-sib.ch).
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119
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nity; Antibiotic; Hemolymph; Signal; Multigene family;
pair of basic residues; Repeat.
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                                            Score 54; DB Pred. No. 2.9; 1; Mismatches
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2.9;
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honeybees.";
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                                                                     Length 144;
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SYC1_MYCTU STAN

ID SYC1_MYCTU STAN

AC P96862;

DT 15-JUL-1998 (Rel. 3

DT 15-JUL-1998 (Rel. 3

DT 30-MAY-2000 (Rel. 3
                                                                                     Query Match
Best Local Similarity
Matches 10; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
CYSTEINYL-TRNA SYNTHETASE 1 (EC 6.1.1.16) (CYSTEINE--TRNA LIGASE (CYSRS 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris | Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S. Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Sqares R., Sulston J., Taylor K., Whitehead S., Barrell B.G.;
"Deciphering the biology of Mycobacterium tuberculosis from the
                                                                                                                                                                                                                                                                                                                                                                                                        TubercuList; Rv3580c; -
TinterPro; IPR001412; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sib or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complete genome sequence.";
Nature 393:537-544(1998).
Nature 393:537-544(1998).
-:- CATALYTIC ACTIVITY: ATP + L-CYSTEINE +
PYROPHOSPHATE + L-CYSTEINYL-TRNA(CYS).
                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                             BINDING
                                                                                                                                                                                                                                                                                                             Pfam; PF01406; tRNA-synt_1e; 1.
PRINTS; PR00983; TRNASYNTHCYS
PROSITE; PS00178; AA_TRNA_LIGASE_I; FALSE_NEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; 292774; CAB07154.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaborabetween the Swiss Institute of Bioinformatics and the EMBL outstat. the European Bioinformatics Institute. There are no restrictions on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98295987; PubMed=9634230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium tuberculosis.
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                                                                                                                                                                                                                                                                          Aminoacyl-tRNA synthetase; Protein biosynthesis; Ligase; SITE 35 45 "HIGH" REGION.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBUNIT: MONOMER (BY SIMILARITY).
SUBCELLULAR LOCATION: CYTOPLASMIC.
SIMILARITY: BELONGS TO CLASS-I AMINOACYL-TRNA SYNTHETASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRONG, TO METHIONYL-TRNA SYNTHETASE.
PWWEWAATHERAFTAAYDALDVLPPSAEP 117
                                             PWWPWRRKHE-----AEPEAEP
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                                                                                                                                                                                                     469 AA;
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270
                                                                                       Conservative
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270
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Pred. No.
                                                                                                                                                                                                  ATP (BY SIMILARITY)
; 515F9D19482ADC0E
                                                                                                                                                                                                                                                       "KMSKS" REGION
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Nycobacterium.
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RESULT 6 045B\_DROME

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RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Ballev R.M., Basu A., Baxendale J., Beynaktaroglu L., Beasley E.M.,
RA Man K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Man K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Markit J.F., Agbayani A., An H.-J., Andrews Pfannkoch C., Baldwin D.,
RA Beson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Berson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Ferraz C., Ferriera S., Fleischmann W.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Llang Y., Lin X.,
RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Llang Y., Lin X.,
RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Llang Y., Lin X.,
RA Merkulov G., Wilsinian N.V., Mobarry C., Morris J., Moshrefi A.,
RA Merkulov G., Wilsinian N.V., Mobarry C., Morris J., Moshrefi A.,
RA Merkulov G., Wilsinian N.V., Mobarry C., Morris J., Moshrefi A.,
RA Shue B.C., Siden-Kiams G.S., Pan S., Pollard M.P., McPherson D.L.,
RA Merkulov G., Wilsinian N.V., Mobarry C., Morris J., Nelson D.L.,
RA Ra Harris N.M., Moy M., Murphy B., Murphy L., Wang S., Yang S., Yao Q.A.,
RA Mandal R.C., Stapleton M., Strong R., Sun E.,
RA Spier B., Scholl R., Scholl R., Welssenbach J.,
RA Spier B.,
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01-0CT-2000
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
MCBI_TaxID=7227;
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                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                        entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                     FlyBase; FBgn0033422; Or45b.
Hypothetical protein; Transmembrane;
                                                                                                                   EMBL; AE003833; AAF58928.1;
                                                                                                                                                                                               modified and this statement is not removed.
                    TRANSMEM
                                     DOMAIN
                                                         faction;
                                                                                                                                                                                                                                                                                                                                    SUBCELLULAR
SIMILARITY:
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                                                         Multigene family.
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    POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                         EXTRACELLULAR (POTENTIAL)
                                                                                G-protein
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DOMAIN
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P15423;
01-APR-1990
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                                                                                                                                                                                       the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contities requires a license agreement (See http://www.isb-sib.ch/ar or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                        Viruses; ssRNA positive-strand Coronaviridae; Coronavirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-APR-1990
15-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                       Coronaviridae;
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                                                                                                                                                                                                                                                                                                                MEDIINE-90264837; PubMed-2345367;
Raabe T., Schelle-Prinz B., Siddell S.G.;
Nucleotide sequence of the gene encoding the spike human coronavirus HCV 229E.";
J. Gen. Virol. 71:1065-1073(1990).
-I- FUNCTION: THE PEPLOMER PROTEIN MEDIATES THE BIND
 CARBOHYD
CARBOHYD
                                                                                                                                              EMBL; X16816; CAA34723.1; PIR; A34766; VGIHHC. InterPro; IPR002551; -.
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                                                                                         Glycoprotein;
SIGNAL
                                                                                                                          Ptam;
                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                       TRANSMEM
                                                                                                             Pfam; PF01601;
                       CARBOHYD
                                  DOMAIN
                                            DOMAIN
                                                                    DOMAIN
                                                                                                                                     InterPro;
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                                                                                                                                                                                                                                                                                TO THE HOST CELL RECEPTOR AND IS INVOLVED IN M AND IN SYNCYTIUM FORMATION.
SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
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VLRSLWEMWVRRHQEFKFDMPFRMLFHDFAHRMPWFP
                                                                                                                                                                                                                                                                                                                                                                                                                                              coronavirus (strain 229E)
                                                                                                               pr01600; Corona_S1;
pr01601; Corona_S2;
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(Rel. 14,
(Rel. 38,
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                                                                                         Envelope protein;
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Last annotation update)
RSOR (SPIKE GLYCOPROTEIN)
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Pred. No. 10;
                                  EZ GLYCOPROTEIN.
EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
CYS-RICH.
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CYTOPLASMIC (POTENTIAL).
; 91A87F38F0572A84 CRC64;
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    N-LINKED
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                                                                                                        Transmembrane;
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  (GLCNAC. . .) (POTENTIAL) (GLCNAC. . .) (POTENTIAL) (GLCNAC. . .) (POTENTIAL)
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                                                                                                        Signal.
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N MEMBRANE FUSION
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RESULT
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Best Local s
Matches 5
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P17593;
01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
15-DEC-1998 (Rel. 37, Last annotation update)
GENOME POLYPROTEIN (CONTAINS: COAT PROTEINS VP1 TO VP4; CORE PROTEINS P2A TO P2C, P3A; GENOME-LINKED PROTEIN VPG; PICORNAIN 3C
(EC 3.4.22.28) (PROTEASE 3C) (P3C); RNA-DIRECTED RNA POLYMERASE P3D (EC 2.7.7.48)).
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CARBOHYD
                                                                                                      MEDLINE-89243189; PubMed-2541543; Bae Y.S., Eun H.M., Yoon J.W.; Genomic differences between the diabetogenic variants of encephalomyocarditis virus."; Virology 170:282-287(1989).
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                   between
                         This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                   Cardiovirus.
NCBI_TaxID=12105;
                                                                                                                                                                                   Encephalomyocarditis virus (strain emc-b
Viruses; ssRNA positive-strand viruses, r
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 European Bioinformatics Institute.
by non-profit institutions as 1
                                                                    FUNCTION: P3C POLYPEPTIDE IS A PROTEASE THAT CLEAVES AT CERTAIN Q/G SITES IN THE POLYPROTEIN. IT MAY BE A CYSTEINE PROTEASE. SUBUNIT: THE VIRUS CAPSID IS COMPOSED OF 60 ICOSAHEDRAL UNITS, EACH OF WHICH IS COMPOSED OF ONE COPY EACH OF PROTEINS VP1, VP2
                                           SIMILARITY: THE PROTEASE BELONGS TO
                                                                                                                                                                                                                                                                                                                                                      Similarity
5; Conserv
                  the Swiss Institute of Bioinformatics
                                                   AND VP4.
SPECIFIC ENZYMATIC CLEAVAGES IN VIVO YIELD MATURE
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                                            PEPTIDASE FAMILY C3.
                                                                                                                                                                                            nondiabetogenic)
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                  and the EMBL outstation
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                                                                                                                                                                                                      POLG_EMCVD STANDARD; PRT; 2292 AA.

POLG_EMCVD STANDARD; PRT; 2292 AA.

P17594;
01-AUG-1990 (Rel. 15, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
15-DEC-1998 (Rel. 37, Last annotation update)
16-ENOME POLYPROTEIN (CONTAINS: COAT PROTEINS VP1 TO VP4; CORE PROTEINS
18-PA TO P2C, P3A; GENOME-LINKED PROTEIN VPG; PICORNAIN 3C

(EC 3.4.22.28) (PROTEASE 3C) (P3C); RNA-DIRECTED RNA POLYMERASE P3D

(EC 2.7.7.48)].
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
LIPID
ACT_SITE
ACT_SITE
SEQUENCE
                                                                           SEQUENCE FROM N.A.

MEDLINE-89243189; PubMed-2541543;
Bae Y.S., Eun H.M., Yoon J.W.;
Bae Y.S., Eun H.M., Yoon J.W.;
"Genomic differences between the diabetogenic and nondiabetogenic variants of encephalomyocarditis virus.";

Virology 170:282-287(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
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                                                                                                                                                                                                                                                                                                              EMCVD
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Pfam; PF00910; RNA_helicase; 1.
Pfam; PF00073; rNv, 3.
Polyprotein; Coat protein; Core
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified and this statement is not removed entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                       Cardiovirus
                                                                                                                                                                              Encephalomyocarditis virus (strain emc-d diabetogenic)
Viruses; ssRNA positive-strand viruses, no DNA stage;
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MEROPS; U29.001; -
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PIR; B31473; GNNYEB.
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VP3, AND VP4
PTM: SPECIFI
SIMILARITY:
                                FUNCTION: P3C POLYPEPTIDE IS A PROTEASE Q/G SITES IN THE POLYPROTEIN. IT MAY BE SUBBUNIT: THE VIRUS CAPSID IS COMPOSED OF ONE COPY EACH OF WHICH IS COMPOSED OF ONE COPY EACH
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SPECIFIC ENZYMATIC CLEAVAGES LARITY: THE PROTEASE BELONGS 1
                       AND VP4.
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PROTEASE (POTENTIAL).
PROTEASE (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hydrolase;
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E PROTEIN P2C
E PROTEIN P3A.
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T PROTEIN VP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                8540D0EB1437E8D4 CRC64;
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          IN VIVO YIELD
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57;
 PEPTIDASE
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                                SE THAT CLEAVES AT CERTAIN
BE A CYSTEINE PROTEASE.
OF 60 ICOSAHEDRAL UNITS,
EACH OF PROTEINS VP1, VP2
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(GAMMA).
(ALPHA).
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 FAMILY C3
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           PROTEINS
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VP1, VP2,
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modified and this statement is not remov-
entitles requires a license agreement (5
or send an email to license@isb-sib.ch).
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RECHERICHIA COLL.

RECHERIA; Proteobacteria;
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Science [2]
                                      SEQUENCE FROM N.A.
STRAIN-K12 / MG1655;
STRAIN-K12 / MG1655;
MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, I
Blattner F.R., Plunkett G. J., Glass
Riley M., Collado-Vides J., Glass
Gregor T. Davis N. B.
                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                           RNA-directed
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polyprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam;
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InterPro; IPR001205; -.
InterPro; IPR001676; -.
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                  The
                         Gregor J., Davis N.W., Kirkpatrick H.A., Mau B., Shao Y.;
                                                                                                                                     HYPOTHETICAL
                                                                                                                                                                      YBCI_ECOLI
                                                                                            NCBI_TaxID=562;
                                                                                                                                                                                                                         967
                                                                                                                                             1-NOV-1995
1-NOV-1995
1-NOV-1997
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        complete genome sequence of nce 277:1453-1474(1997).
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PF00910;
PF00073;
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                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                             A polymerase;
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KDA
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PROTEIN IN CYSS-FOLD INTERGENIC
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J., Glasner
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PICORRAIN 3C (P22).
PICORRAIN 3C (P22).
RNA-DIRECTED RNA POLYMERASE P3D
MYRISTATE (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                          COAT
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PROTEASE (POTENTIAL)
W; F2B0627B0F444107
                                                                                                                                                                               PRT;
                                        Bloch C.A., Per
sner J.D., Rode
                                                                                                             subdivision;
                 Escherichia coli K-12.";
                                                                                                                                                                                                                                                                                                                                                              PROTEIN VP4
PROTEIN VP3
PROTEIN VP3
PROTEIN VP1
PROTEIN P2B
PROTEIN P2B
PROTEIN P2C
PROTEIN P3A.
                                                                                                                                                                               173
                                                                                                                                                                                                                                                                                                                       (POTENTIAL).
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57;
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(BETA).
(GAMMA).
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                                  M.A.,
                                                  N.T.,
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                                          T., Burland V., Mayhew G.F.,
                                  Rose
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RESULT 11
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ID FUT3_HUMAN ST
AC P21217; 099448; Q
DT 01-MAY-1991 (Rel.
DT 01-MAY-1991 (Rel.
DT 30-MAY-2000 (Rel.
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EMBL; U8264; AAB40280.1; -.
EMBL; U30588; -; NOT_ANNOTATED_CDS.
EMBL; X59293; -; NOT_ANNOTATED_CDS.
ECOGENE; EG12708; ybcI.
Hypothetical protein
SEQUENCE 173 AA; 19530 MW; 68055
                                                                                                                                                                                                                                Homo sapiens (Human)
Eukaryota; Metazoa;
Manmalia; Eutheria;
NCBI_TaxID=9606;
Kukowska-Latallo J.F., Larsen R.D., Nair R.P., "A cloned human cDNA determines expression of embryonic antigen and the Lewis blood group alpha(1,3/1,4)fucosyltransferase."; Genes Dev. 4:1288-1303(1990).
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the European Bioinformatics Institute. This
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Roberts D., Allen E., Araujo R., Apar.
Duncan M., Federspiel N., Hyman R., K.
Lew H., Lin D., Namath A., Oefner P.,
Submitted (JAN-1997) to the EMBL/GenBr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Detection of new genes in a bacterial three gene classes."; Nucleic Acids Res. 23:3554-3562(1995).
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Yonetani Y., Sanpei
Submitted (XXX-1992)
                                                                                                                                             SEQUENCE FROM N.A. MEDLINE-91032981;
                                                                                                                                                                         SEQUENCE FROM
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                                                                                                                                                                                                                                                                                                                                                                                                                  ALPHA-4-FUCOSYLTRANSFERASE)
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3 (4)-L-FUCOSYLTRANSFERASE)
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the EMBL/GenBank/DDBJ
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Oefner P., Schramm
EMBL/GenBank/DDBJ
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Pred. No. 5.4;
4; Mismatches
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(EC 2.4.1.65) (BLOOD)
(FUCOSYLTRANSFERASE
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Komp C.,
n S., Davis
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Kurdi
R.W.;
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3) (FUCT-
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"Five novel missense mucucations 'Xhosa' and Caucasian populations Hum. Genet. 102:675-680(1998),
                                                                                                                                                                                                           VARIANTS LE(-) ARG-68 AND MET-105.
MEDLINE=97413801; PubMed=9268337;
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                                                                                                                                                                                                                                                                      group system.";
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                                                                                                                                                                                                                                                                                                 MEDLINE-96243526; PubMed-8801770;
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                                                                                                                                   "Significance of individual point mutations, T202C and C314T, "Significance of individual point mutations, T202C and C314T, human Lewis 'RUT3' gene for expression of Lewis antigens by the alpha'1,3/1,4'-fucosyltransferase, Fuc-TIII.";
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MEDLINE=94342259; PubMed=8063716;
MOIlioone R. Reguigne I. Kelly R.J., Fletcher A., Watt J.,
MoIlioone R., Reguigne H.S., Weston B.W., Lowe J.B., Oriol
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du Toit E.D., Kimura H.;
                                                                                                                                                                                                                                                                                                                                                              VARIANTS LE(-)
                                                                                                                                                                                                                                                                                                                                                                                                                    "Molecular genetic
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Ando T., SenO T., Narimatsu
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MEDLINE=95050753; PubMed=7961897;
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MEDLINE-94059082; PubMed-8240337;
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"Expression of human chromosome 19p alpha(1,3)-fucosyltransferase
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SEQUENCE FROM N.A.
                                                                                              MEDLINE-98366989;
                                                                                               VARIANTS LE(+) K-102; A-124, AND VARIANTS MEDLINE=98366989; PubMed=9703429;
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                                     e Lewis gene 'FUT3'
South Africa.";
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                                                                                  Schlaphoff T.,
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AN INACTIVE ENZYME.
                                AN ACTIVE ENZYME WHILE LEWIS-NEGATIVE
                                                                    VED IN THE EXPRESSION OF VIM-2, LEWIS A, LEWIS B, SIALYL X AND LEWIS X/SSEA-1 ANTIGENS. MAY BE INVOLVED IN BLOOD LEWIS DETERMINATION; LEWIS-POSITIVE (LE(+)) INDIVIDUALS
                                    (LE(-)) INDIVIDUALS
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CATALYTIC ACTIVITY: GDP-L-FUCOSE + 1,3-BETA-D-GALACTOSYL-N-ACETYL-D-GLUCOSAMINYL-R = GDP + 1,3-BETA-D-GALACTOSYL-(ALPHA-1,4-L-FUCOSYL)-N-ACETYL-D-GLUCOSAMINYL-R.

BATHMAY: GLYCOSYLATION.

SUBCELLULAR LOCATION: TYPE II MEMBRANE FORM IN TRANS CISTERNAE OF GOLGI. PROTEIN. MEMBRANE-BOUND

INTESTINE, LUNG AND KIDNEY AND TO A LESSER EXTENT IN SALIV GLAND, BLADDER, UTERUS AND LIVER.
GLAND, BLADDER, UTERUS AND LIVER.
MISCELLANGOUS: ALSO ACTS ON THE CORRESPONDING 1,4-GALACTOS DERIVATIVE, FORMING 1,3-L-FUCOSYL LINKS.
SIMILARITY: STRUCTURAL SIMILARITY WITH THE OTHER MAMMALIAN CHARGEST AND AND ADMINISTRATION OF THE MAMMALIAN CHARGEST AND ADMINISTRATION OF THE FORM IN TRANS CISTERNAE OF GOLGI.
TISSUE SPECIFICITY: HIGHLY EXPRESSED ĭ STOMACH, C COLON, SALIVARY SMALL

1,4-GALACTOSYL

GLYCOSYLTRANSFERASES

use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch). s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way

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EMBL; X53578; CAA37641.1; -. EMBL; U27328; AAC50187.1; -. EMBL; U27326; AAC50185.1; -. EMBL; U27327; AAC50186.1; -. EMBL; D89324; BAA13941.1; -. EMBL; D89325; BAA13942.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                            PIR; A36669; A36669
MIM; 111100; -.
                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00852; Fucosyl_transf; 1.
Transferase; Glycosyltransferase; Glycoprotein;
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 361
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                                                 /FTId=VAR_007963.
V -> M (IN LE(-)).
/FTId=VAR_007964.
D -> A (IN LE(-)).
/FTId=VAR_003429.
                                                                                                                                                                                                                                                                                                                                                              Polymorphism; Blood group antigen. CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                       Q -> K (IN LE(+)).

/FTId=VAR_007960.

T -> M (IN LE(-)).

/FTId=VAR_003427.
                                                                                                                                                                                                                                                       /FTId=VAR_003426.
W -> R (IN LE(-)).
/FTId=VAR_007959.
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IN ACTIVITY).
/FTId=VAR_003430.
BF4398044F19C284
                                                                                                                                                                                                                                                                                                                         LUMENAL, CATALYTIC (POTENTIAL)
N-LINKED (GLCNAC. .) (PROBAB
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/FTId-VAR_003428.
G -> R (IN LE(-)).
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 CRC64;
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Conservative

22.7%;

Score 52.5; Pred. No. 11;

DB

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Length 361;

37;

Gaps

Mismatches

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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RAT
                                                                                              Transferase; Acyltransferase; Calcium-binding; ACT_SITE 385 385 BY SIMILARITY SEQUENCE 824 AA; 90769 MT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE-91067700; PubMed-1979171;
MEDLINE-91067700; Stewart B.E., Qin
                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Primary structure of keratinocyte transglutaminase.";
proc. Natl. Acad. Sci. U.S.A. 87:9333-9337(1990).
proc. Natl. Acad. Sci. U.S.A. 87:9333-9337(1990).
FOUNTION: CATALYZES THE CROSS.LINKING OF PROTEINS AND THE
CONJUGATION OF POLYAMINES TO PROTEINS. RESPONSIBLE FOR CRO
LINKING EPIDERMAL PROTEINS DURING FORMATION OF THE STRATU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Phillips M.A., Stewart Jetten A.M., Rice R.H.;
                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria;
NCBI_TaxID-10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota;
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                                                                                                                                               Pfam; PP01841; Transglut_core; 1. Pfam; PF00927; Transglutamin_C; 1. Pfam; PF00868; Transglutamin_N; 1. Pfam; PF00867; TRANSGLUTAMINASE;
                                                                                                                                                                                                  PIR; B38423; B38423.
HSSP; P00488; 1FIE.
InterPro; IPR001102; -.
InterPro; IPR002931; -.
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                                                            Local
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COFACTOR: CALCIUM.
                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: MEMBRANE-BOUND. SIMILARITY: BELONGS TO THE TRANSGLUTAMINASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                CORNEUM.
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                       RW---
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                                                                                                                                                                                                                                                                           an email to license@isb-sib.ch).
                                                            Similarity
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                       PWWPWRKHEAEPEAEP
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20, Last sequence update)
38, Last annotation update)
38, Cast annotation update (GAMMA-GLUTAMYLTRANSFERASE K (ITGK) (TGK) (EPIDERMAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
Rodentia;
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Pred.
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                                                                                                              SIMILARITY.
A7D81C148CEFD938
                                                 Mismatches
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                                                            52.5;
No. 25;
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AL TGASE).
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RESULT

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Pfam; PF01568; Molydop\_binding; 1.
PROSITE; PS00551; MOLYBDOPTERIN\_PROK\_1;
PROSITE; PS00490; MOLYBDOPTERIN\_PROK\_3;
PROSITE; PS00932; MOLYBDOPTERIN\_PROK\_3;

Selenocysteine;

Selenium;

NAD;

FALSE\_NEG

EcoGene; EG11858; HSSP; P07658; 1FDI

fdoG.

nterPro;

IPR001467;

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FDOG_ECOLI ST/
P32176; P78131;
01-OCT-1993 (Rel.
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15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1998 (Rel. 40, Last annotation update)
FORMATE DEHYDROGENASE-O, MAJOR SUBUNIT (EC 1.2.1.2)
DEHYDROGENASE-O ALPHA SUBUNIT) (FDH-Z ALPHA SUBUNIT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Blattner F.R., Plunkett G. III, Bloch C.A., Riley M., Collado-Vides J., Glasner J.D., Rogegor J., Davis N.W., Kirkpatrick H.A., Go
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mau B., Shao Y.; "The complete genome sequence of Escherichia coli K-12."; Science 277:1453-1474(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Plunkett G. III, Burland V.D., Daniels D.L., Bl
"Analysis of the Escherichia coll genome. III.
region from 87.2 to 89.2 minutes.",
Nucleic Acids Res. 21:3391-3398(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-K12
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                                                                                                                                                                                                                                                                                                                                                                                                                       and a possible physiological
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-97426617; PubMed-9278503;
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                                                                                          EMBL; L19201; AAB03027.1; -.
EMBL; AE000464; AAD13456.1; ALT_SEQ.
EMBL; X87583; CAAE0887.1; -.
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                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the El
                                                                                                                                                                                                                                                                                                                                                                                                                                     "Expression
                                                                                                                                                                                                                                                                                                                                                                                                                                               Abaibou H.,
                                                                                                                                                                                                                                                                                                                                                                     Pacteriol. 177:7141-7149(1995).
FUNCTION: ALLOWS TO USE FORMATE AS AEROBIC RESPIRATION. SUBUNIT ALPHA
                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: CYTOPLASMIC (SIMILARITY: BELONGS TO THE BEAUTION)
                                                                                                                                                                                                                                                                                              MAY BIND SUBUNIT:
                                                                                                                                                                                                                                                                                                                     CATALYTIC ACTIVITY: FORMATE + NAD(+) = CO(2) + NADH.
COFACTOR: MOLYBDENUM (MOLYBDOPTERIN) AND SELENCCYSTEINE.
ACTIVE-SITE SELENCCYSTEINE IS ENCODED BY THE OPAL CODON,
                                                                                                                                                                                 European Bioinformatics Institute. The by non-profit institutions as long
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and characterization of the
ble physiological role for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           M N.A.
MG1655;
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FORMATE DEHYDROGENASE IS
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Best Local :
                                                    Hypothetical protein; Oxidoredu ACT_SITE 159 159 BY SEQUENCE 253 AA; 27177
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SE_CYS
CONFLICT
CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
PUTATIVE OXIDOREDUCTASE RV0945 (EC 1.-.-).
RV0945 OR MTCY10D7.29C.
                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collal between the Swiss Institute of Bioinformatics and the EMBL outsithe European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in
                                                                                                                                                                                                                                                                                                                    Rutter S., Seeger K., Skelton S., Squares S., Sqares R. Taylor K., Whitehead S., Barrell B.G., "Deciphering the biology of Mycobacterium tuberculosis complete genome sequence.";
Nature 393:537-544(1998).
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METAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-98295987; PubMed-9634230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-H37RV;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycobacterium tuberculosis
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                                                                                                                                  InterPro; IPR002198;
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Similarity 34.8%;
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                                                              ECO2DBASE; C033.0; 6TH EDITION.

ECO2DBASE; C033.1; 6TH EDITION.

EcoGene; EG11192; yicc.

CONFLICT 148 148 E -

CONFLICT 184 189 RLV

SEQUENCE 287 AA; 33175 MW; 7
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01-JUL-1993
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                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                   "Three genes preceding pyrE on the Escherichia essential for survival and normal; cell morpholo culture and at high temperature."; Res. Microbiol. 142:283-288(1991).
-!- MISCELLANEOUS: ESSENTIAL FOR E.COLI UNDER S
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STRAIN-K12 / MG1655;
MEDLINE-93315143; PubMed-7686882;
MEDLINE-93315143; PubMed III, Daniels D.L., Blattner F.R.;
Burland V.D., Plunkett G. III, Daniels D.L., Blattner F.R.;
"DNA sequence and analysis of 136 kilobases of the Escherichia genome: organizational symmetry around the origin of replication of Genomics 16:551-561(1993).
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P23839;
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"Molecular and mutational analysis
the Escherichia coli chromosome.";
Mol. Microbiol. 3:393-404(1989).
                                                                                                                                               EMBL; AE000441; AAC76668.
EMBL; X14235; CAA32451.1;
PIR; S06994; S06994.
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NCBI_TaxID=562;
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  GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd
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Q9wsv7 tt virus. d
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## ALIGNMENTS

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Query Match
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O1-NOV-1999 (TrEMBLrel. 12, Last sequence update)
O1-NOV-1999 (TREMBLrel. 12, Last annotation update)
O1-NOV-1999 (TREMBLREL. 12, Last annotation update)
O1-NOV-1999 (TREMBLREL 12, Last annotation update)
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TT virus.
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STRAIN-ATCC 32173;
Puyesky M., Benhamou N., Ponce Noyola P., Bauw G., Ziv T.,
Puyesky M., Herrera Estrella A., Horwitz B.A.;
"Developmental regulation of a gene encoding a multidomain
conidiospore surface protein of Trichoderma, cmpl.";
Submitted (MAR-199) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ133651; CAB40845.1;
SEQUENCE 1245 AA; 135824 MW; 3249C749AFA0CDF8 CRC64;
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NCBI_TaxID-5544;
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Submitted (JUN-1999)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Viruses; ssDNA viruses;
NCBI_TaxID=68887;
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01-MAR-2001
01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ilzuka H., Miyakawa Y., Mayumi M.;
"The entire nucleotide sequences of two distinct TT virus (TTV)
isolates (TJN01 and TJN02) remotely related to the original TTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ukita M., Okamoto H.,
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Q9DUC9;
01-MAR-2001
01-MAR-2001
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Viruses; ssDNA viruses;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID-68887;
                                                                                                                                                                                                                                                                                                                                                                                                     Okamoto H., Nishizawa T., Tawara A., Pokishimoto J., Tanaka T., Miyakawa Y., I
Kishimoto J., Tanaka T. wiruses in humans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Okamoto H.;
                                                                                                                                                                                                                                                                                                                                 phylogenetic relatedness.";
Virology 277:368-378(2000).
EMBL: AB041959; BAB19313-1; -.
SEQUENCE 723 AA; 85393 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                              Q9buc9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed-11080484;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-MF-TTV9;
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AB028669; BAA94878.1;
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                                                                                                                                                            PWWPWRR----
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(TrEMBLrel.
(TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           746 AA;
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  (TrEMBLrel.
                                                              PRELIMINARY,
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diyakawa Y., Mayumi M.;
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Pred. No. 1.
1; Mismatche
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pred. No.
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Best Local S
Matches 13
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Best Local :
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"Species-specific TT viruses in

phylogenetic Tatatedness.";

Virology 277:368-378(2000).

EMBL; AB041957; BAB19308.1;

SEQUENCE 735 AA; 86132 MW;
                                                                                                                                                                                                                                               Matches
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Viruses;
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Q9DT80;
01-MAR-2001
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ORF1.
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Submitted (APR-2000)
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Q9DT81;
Q9DT81;
Q1-MAR-2001
Q1-MAR-2001
Q1-MAR-2001
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01-MAR-2001
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Sai T., Sugai Y.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TT virus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                    TT virus mRNAs detected in the bone marrow
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                                                                                                                                                                                                                                                                 Local Similarity
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13; Conserv
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nilarity 34.3%;
Conservative
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Miyakawa Y., Mayumi M.;
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Pred. No. 2.5;
3; Mismatches
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pred. No. 0.2;
3; Mismatches
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                                                                                      748
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                                                                                                                                                                                                                                                                                             Length 49;
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Best Local Similarity
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Q18753;
Q1-NOV-1996
Q1-NOV-1996
Q1-NOV-1998
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Bonfield J., Burton J., Connell M., Copsey T., Copper J., Coulson A.
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston L.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen F
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Watson A., Weinstock L., Wilkinson Sproat J., Wohldman P.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Biochem. Biophys. Res. Commun. EMBL; AB050448; BAB19928.1; .. SEQUENCE 748 AA; 88552 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=20568739; PubMed=11118348;
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Submitted (I
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                                                                                                                                                                                                                                                                                                                                                                                                                                     "2.2 Mb of contiguous nucleotide sequence from elegans.";
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Rhabditidae; Pelode
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MEDLINE=94150718; PubMed=7906398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                 Nature 368:32-38(1994).
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IMILRWPWWPWRR
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     34
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Last annotation update
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                                                       2:
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Pred. No. 2.5;
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Q9LQNO;
01-OCT-2000
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Q29270;
Q1-NOV-1996 (TrEMBLrel. 01, C
Q1-NOV-1996 (TrEMBLrel. 01, I
Q1-NOV-1997 (TrEMBLrel. 03, I
Q1-MAY-1997 (TRAGMENT).
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Liu S. X., Chan A., Yu G., Lee J.M., Lenz C., Pham P., Sakano H.,
Liu S. X., Chan A., Yu G., Lee J.M., Lenz C., Pham P., Sakano H.,
Toriumi M., Vysotskaia V.S., Chin C., Chiou J., Choi E., Chung M.,
Gonzalez A., Howng B., Liu A., Vaysberg M., Altafi H., Brooks S.,
Buehler E., Chao Q., Conn L., Conway A.B., Hansen N.F.,
Johnson-Hopson C., Khan S., Kim C., Lam B., Miranda M., Nguyen M.,
Palm C.J., Shinn P., Southwick A., Davis R.W., Ecker J.R.,
Federspiel N.A., Theologis A.;
Federspiel N.A., Theologis A.;
The sequence of BAC F5D14 from Arabidopsis thaliana chromosome 1.";
submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;
Brassicales; Brassicaceae; Arabidopsis.
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TISSUE-SMALL INTESTINE;
MEDLINE-96327607; PubMed-8672129;
                                                                                                                              Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Cetartiod
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                                                 SEQUENCE FROM N.A.
                                                                                                 NCBI_TaxID-9823;
                                                                                                                                                                          Sus scrofa (Pig)
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                                                                                                                           Chordata; Craniata; Vertebrata; Cetartiodactyla; Suina; Suidae;
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Last sequence update)
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SEQUENCE
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PROSITE; PS01208; VWFC; 1.
SMART; SM00214; VWC; 1.
NON_TER 147 147
SEQUENCE 147 AA; 16652 M
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01-NOV-1996
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01-MAR-2001
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Mol. Cell. Biol. 14:5950-5960(1994).
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MEDLINE-94344105; PubMed-8065328;
Rhodes K., Rippe R.A., Umezawa A., Nehls
"DNA methylation represses the murine alp
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MEDLINE=94344105;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                               01-MAR-2001 (TrEMBLrel.
01-MAR-2001 (TrEMBLrel.
01-MAR-2001 (TrEMBLrel.
PROBABLE OUTER MEMBRANE
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                                                                                                                                                                                                                                                                                                                                               Q914S6
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                                                                                            Bacteria; Proteobacteria;
                                                                                                                      Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15
                                                                                                                                                            PA1048.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 RWPWWPWRRKHEAEPEAEPIMILRW-PW-----WPWR 33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RWP--PWTRWH---PWTAWTSWSSWSPWAPRTPWPWR 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X54876; CAA38657.1; ..
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118 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IPR001007;
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(TrEMBLrel. 16, Last annotation update)
Type I, ALPHA 1 (ALPHA 1 TYPE I COLLAGEN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
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. 16, Last sequence upon the control of the control
                                                                                                   gamma
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Pred. No. 3.8;
0; Mismatches
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                                                                                                         subdivision;
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No. 3;
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alpha
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1(I) collagen
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                                                                                                            Pseudomonadaceae;
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RESULT
Q9QUD8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Complete genome sequence of Pseudomonas aeruginosa PA01, opportunistic pathogen.";
Nature 406:959-964(2000).
EMBL; AE004537; AAG04437.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. STRAIN-PAO1;
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01-FEB-1997
01-FEB-1997
01-JUN-2000
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PRINTS; PRO1021; OMPADOMAIN.
SEQUENCE 293 AA; 31509 MW;
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Interpro; IPR001145; -.
Pfam; PF00691; OmpA; 1.
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Q9QUD8
Q9QUD8;
01-MAY-2000
                                                                                                                                                                                                                                                                                     Kaneko T., Sato S., Kotani H., Tanaka A., Asamizu E., Nal
Miyajima N., Hirosawa M., Sugiura M., Sasamoto S., Kimura
Hosouchi T., Matsuno A., Muraki A., Nakazaki N., Naruo K.
Shimpo S., Takeuchi C., Wada T., Watanabe A., Yamada M.,
                                                                                                                                                                                                                                                                                                                                                                        Synechocystis sp. (strain PCC 6803).
Bacteria; Cyanobacteria; Chroococcales;
NCBI_TaxID-1148;
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                                                                                                                                                                                                                                                                               Tabata S.;
                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE-97061201; PubMed-8905231;
                                                                                                                                                                                            Hypothetical
SEQUENCE 48
                                                                                                                                                                                                                               DNA Res
                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                 Sequence analysis
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10; Conserv
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                                                                                                                                                                                            al protein.
485 AA; 54
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(TrembLrel. 02, Last sequence update)
(TrembLrel. 14, Last annotation updat
L 54.3 KDA PROTEIN.
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nilarity 29.48;
Conservative
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                         PRELIMINARY;
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                                                                                                                                                                                                                                        s of the genome of the unicellular cyanobacterium strain PCC6803, II. Sequence determination of the assignment of potential protein-coding regions.
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                                                                                                                                                                                               54270 MW;
                                                                                                            ---WPWRRKHEAEPEAEPIM 23
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6; Mis
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                                                                                                                                     Score 57.5; D
Pred. No. 16;
4; Mismatches
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Lagrou M.,
Yuan Y.,
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Best Local
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Viruses; ssDNA viruses;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Erker J.C., Leary T.P., Desai S.M., Chalmers M.L., Mushahwar I.K.; Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF122920; AAD45650.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         distinct genotypes.";
J. Gen. Virol. 80:1743-1750(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-99350006; PubMed=10423143;
Erker J.C., Leary T.P., Desai S.M., Chalmers M.L., Mushahwar I.K.;
"Analysis of TT virus genomic-length sequences representing three
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=68887;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Viruses; ssDNA viruses;
NCBI_TaxID=68887;
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Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF261761; AAF82559.1;
SEQUENCE 766 AA; 90844 MW; 22E5A3BBA3CC8187 CRC64;
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2; Mismatches
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Interpro; IPR001205; ...
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Pfam; PF00073; rhv; 3
Pfam; PF00680; RNA_dep_RNA_pol; 1.
Pfam; PF00610; RNA_hellcase; 1.
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01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
POLYPROTEIN, COMPLETE CDS.
Encephalomyocarditis virus.
Viruses; sRNA positive-strand viruses, no DNA stag
                                                                                                                                                                                                                                                                                                  Duke G.M., Hoffman M.A., Palmenberg A.C.;
"Sequence and structural elements that contribute encephalomyocarditis virus RNA translation.";
J. Virol. 66:1602-1609(1992).
EMBL; M01861; AAA43037.1;
HSSP; P12296; 1MEC.
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Post-processing: Minimum Match 0%
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Cationic peptide(s) having anti-microbial activity - used for the inhibition of bacterial and viral growth, as an antitumour agent, and as a food preservative  $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left( \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{$ 

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19 AAY245/2 21 AAY91812 19 AAY94573 21 AAY91813 118 AAW13802 19 AAY24570	6 94.
19 AAY245/2 21 AAY91812 19 AAY24573 21 AAY91813	6. 94.
19 AAY245/2 21 AAY91812 19 AAY24573	04.
19 AAY243/2 21 AAY91812	6 94.
AAY/AS//	6 94.
10 33V2/572	5 94 .
19 AAY24615	6 94.
18 AAW12877	6 94.
21 AAY91804	7 95.
19	7 95.
19 AAY91806	
21 AAY91811 Amino	1 100.
19 AAY24583	1 100

Claim

<u>ب</u>

Page

65;

89pp; English

represents a specifically claimed novel isolated has antimicrobial activity. The amino acid

present sequence

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CC = 0-8; u = 0-1; X1 = Ile, Leu, Val, Phe, Tyr, Trp or Met; X2 = Trp or CC Phe; X3 = Arg or Lys; X4 = Trp or Lys; and X5 = Phe, Trp, Arg, Lys or CC Phe; X3 = Arg or Lys; X4 = Trp or Lys; and X5 = Phe, Trp, Arg, Lys or Pro. The peptides are preferably amidated or carboxymethylated. The CC Paptides may be used in methods for inhibiting the growth of a bacterium CC antibiotic resistant bacteria, combined with activity against the medically important fungus Candida albicans. In addition, the peptides are useful as antitumour agents and/or antiviral agents. The peptides are be used as sterilants or preservatives of materials susceptible to microbial or viral contamination, e.g. in processed foods to inhibit CC Salmonella, Versina and Shigella. The peptides are compact and tend to Salmonella, versina and Shigella. The peptides are compact and tend to CC have a unique polyproline type II extended helax structure that permits them to span the membrane with relatively few amino acids. The peptides possess the ability to work spergistically with antibiotics, and in CC addition, some of then possess anti-endotoxin activity.

CC addition, some of the specification, but differs slightly from the SEQ ID NO:1 or the sequence listing on page 51 of the specification (see AAW27179).
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Best Local Similarity
Matches 13; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                        AAY24609
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY24609 standard;
                                                                                                                                                                                                                                                                              Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectan additive; shampoo; soap; insecticide; herbicide; preservative food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                         18-AUG-1999
                                                                                                         13-JAN-1997;
21-AUG-1996;
                                                                                                                                                        21-AUG-1997;
                                                                                                                                                                                                                     WO9807745-A2
                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                            Indolicidin analogue #61.
                                                                         (MICR-) MICROLOGIX BIOTECH INC.
              WPI; 1998-169090/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ILKKWPWWPWRRK 13
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                                                Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; llarity 100.0%; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                         97US-0034949.
96US-0024754.
                                                                                                                                                        97WO-US14779
                                                                                                                                                                                                                                                                                                                                                                                                                                                          peptide;
                                                Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 91; DB 18;
Pred. No. 5.6e-07;
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                                                  Taylor
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Sequence

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their toxicity.

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New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                      Example 1; Page 32; 129pp; English.
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Best Local S
Matches 13
                                             25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
26-SEP-1997;
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                                                                                                                                                                                                                                                       AAW66378;
                                                                                                                                                                                                                                                                        AAW66378 standard; peptide; 13
                                                                                                                                                     Synthetic
                                                                                                                                                                        Indolicidin analogue; resistance; cationic peptide; antibiotic;
bacterial infection; tolerance; antibacterial; microorganism;
bacteria; fungus; parasite; virus.
                                                                                                                                                                                                                                  12-JAN-1999
                                                                                                                                    WO9840401-A2
                                                                                                                  17-SEP-1998
          Fraser JR,
                          (MICR-) MICROLOGIX BIOTECH INC
                                                                                              10-MAR-1998;
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                                                                                                                                                                                                                                                                                                                                                ILKKWPWWPWRRK 13
                                                                                                                                                                                                                                                                                                                                                                1 Similarity
13; Conserv
                                                                                                                                                                                                               peptide of claim 15 #5.
                                                                                                                                                                                                                                                                                                                                                                  Conservative
           McNicol PJ,
                                                                                                                                                                                                                                   (first entry)
                                                98US-0030619.
97US-0040649.
97US-0915314.
97US-0060099.
                                                                                                 98WO-CA00190
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            West MHP
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Pred. No. 5.6e-07;
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AAW71690
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                                                                                                                              Increasing plasmid copy number in a cell with the repA gene product - and an small cryptic plasmid ori sequence, useful for high level expression of e.g. cytokines, antigens or therapeutic proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence represents a specifically claimed cationic peptide from the present invention. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
MBII1 is a small (mol.wt. 1879) cationic peptide. DNA encoding MBII1 has been incorporated into vector pR2h-B1, in which the replication leader (R21) sequence of RepA (see also AAM71686) is joined to 2 Hpro peptides (see also AAW71692), to provide a vector for expression of MBII1 in host cells. The invention
                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                Example 13; Page 54; 82pp; English.
                                                                                                                                                                                              WPI; 1998-531571/45
                                                                                                                                                                                                                              Burian J,
                                                                                                                                                                                                                                                                                                            14-MAR-1997;
                                                                                                                                                                                                                                                                                                                                          16-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                         24-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                         WO9841636-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        replication;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MBI11; cationic peptide; plasmid pKL1; small cryptic plasmid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cationic peptide MBIll (MW 1879).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW71690;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
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                                                                                                                                                                                                                                                             (KAYW/)
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1 11kkwpwwpwrrk 13
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13; Conser
                                                                                                                                                                                                                                                            ) BURIAN J.
) KAY W W.
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                                                                                                                                                                                                                              Kay WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RepA;
                                                                                                                                                                                                                                                                                                          97US-0040722
                                                                                                                                                                                                                                                                                                                                          98WO-CA00214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        vector;
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Pred. No. 5.6e-07;
; Mismatches 0;
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Mismatches

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100.0%;

Score 91; DB 21; Pred. No. 5.6e-07

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Length

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Best Local Similarity
Matches 13; Conser
                                A novel method allows the efficient production of cationic peptides in recombinant host cells. The method involves construction of a multi-domain fusion protein expression cassette comprising a promoter and a nucleic acid molecule expressed as an insoluble protein. The inclusion of anionic peptide sequences in the linker sequences neutralises the positive charge of the cationic peptide so that the charge of the fusion protein is controlled. This cassette allows high yield, stable production of the cationic peptides that the charge of the sequence is the MBI-II peptide. MBI-II is a cationic peptide derived from modifications of indollcidin.
                                                                                                                                                                                                                                                                                                         {\tt Multi-domain} fusion protein expression cassette used for high yield stable production of foreign peptide gene products -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cellulose binding domain; CBD; MBI-11; indolicidin; bovine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene encoding RepA. The vectors can reach very high levels of plasmid replication, but are not lethal to the host cell, and can be used to direct the high level expression of e.g. cytokines,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                provides controlled replication plasmid vectors (RAMP vectors) comprising a replication origin of a small cryptic plasmid and gene encoding RepA. The vectors can reach very high levels of
Sequence
                                                                                                                                                                                                                                                                         Disclosure;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY94495 standard;
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                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-400086/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200031279-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MBI-11 peptide derived from indolicidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY94495;
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                                                                                                                                                                                                                                                                     Page 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0109218
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Pred. No. 5.6e-07
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RESULT
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AC A
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                                                                                                                                                                                                                                             Indolicidin is a potent antimicrobial tridecapeptide, originally comparished from cytoplasmic granules of bovine neutrophils. CP-11 is an enalogue, which has better activity against E. coli, resudomonas comparished and candida albicans, but reduced activity against colors and candida albicans, but reduced activity against colors are comparished and cardida albicans, but reduced activity against colors are comparished to have increased stability against plant protease degradation. CC was found to have increased stability against plant protease degradation. CC expression of antimicrobial peptides in transgenic plants suffers a major comparished to the foreign peptides are susceptible to rapid composation by proteases. The invention concerns reducing the extent of degradation by proteases. The invention concerns reducing the extent of composate degradation of a protein applied to, or produced by a plant by composed degradation and Rev4 are useful for production of the antimicrobial peptides. Compositions containing compositions and Rev4 are also useful for production of agronomically indolicidin and Rev4 are also useful for production of agronomically compositions.
RESULT
AAY91773
ID AAY9
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Matches 13
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02-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200026344-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          indolicidin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (INTE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 4; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polypeptides for administered to,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Everett NP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-365597/31.
                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           functional equivalents
                AAY91773 standard; Peptide;
                                                 7
                                                                                                                                 ILKKWPWWPWRRK 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERLINK BIOTECHNOLOGIES LLC. UNIV KENTUCKY RES FOUND.
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in; protein production; reverse peptide.
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                                                                                                                                                                                                                                                                                 proteins
                                                                                                                                                                                                                                                  13 AA;
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98US-0106537.
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Pred. No. 5.
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W09965506-A2 Synthetic

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Best Local Similarity 100
Matches 13; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically pharmaceutical composition can be used to treat tumours, specifically lenkaemia, multiple myeloma, or tumours of breast, lung, ovary, lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence represents a cationic peptide amino acid sequence, can be used in the pharmaceutical composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 14; 94pp; English.
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                                                                                                                                Cationic peptide; tumour; pharmaceutical composition; cancer; treatme; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; oyary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                          AAY91774 standard; Peptide;
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Pred. No. 5.6e-07;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma;
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breast; lung; ovary; cervix; uterus;
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Pred. No. 5.
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Novel

pharmaceutical composition

containing optionally

activated

lymphoma, cervix, u

leukaemia,

multiple myeloma,
, prostate, liver (

and or

colon tumours

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RESULT 10
AAY91819
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Best Local Similarity
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                                        This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polyoxyalkylene-modified cationic peptides, useful for treating tumours
                          pharmaceutical composition can be used to treat tumours, specifically
                                                                                                                                                  Disclosure; Page 15;
                                                                                                                                                                                            polyoxyalkylene-modified cationic
                                                                                                                                                                                                Novel pharmaceutical composition containing optionally polyoxyalkylene-modified cationic peptides, useful for
                                                                                                                                                                                                                                                                      Friedland HD,
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                                                                                                                                                                                                                                                                                                                                 12-JUN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    resistance
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                      Krieger
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                                                                                                                                                 94pp; English
                                                                                                                                                                                                                                                                      TJ,
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                                                                                                                                                                                                                                                                       Taylor R,
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Pred. No. 5.6e-07;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide MBI 11E2CN
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                                                                                                                                                                                              peptides,
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RESULT 1
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Best Local Similarity
                                                            Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              multidrug resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Amino acid sequence
                                                                                                                                                                             This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9965506-A2
                                                                                                                                                                                                                                                                        Claim 1; Page 15; 94pp; English.
                                                                                                                                                                                                                                                                                                             Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours
                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-223549/19
                                                                                                                                                                                                                                                                                                                                                                               Friedland
                                                                                                                                                                                                                                                                                                                                                                                                      (MICR-) MICROLOGIX BIOTECH INC
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                                                                                                                Sequence
                                                                                                                                     cervix, uterus, skin,
                                                                                                                                                        pharmaceutical composition can be used to treat tumours, specifically pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11
                                                                                                                                                       ymphoma,
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                                                            Local Similarity
                        1 ILKKWPWWPWRRK 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                           leukaemia, multiple myeloma,
terus, skin, prostate, liver a
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ilarity 100.0%;
Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of cationic peptide MBI 11E3CN.
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Pred. No. 5.6e-07;
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                                                  Score 91; DB 21;
Pred. No. 5.6e-07;
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                                                                                                                                            and colon.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative;
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                                                                                                                                                                                                                  aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-JAN-1997;
21-AUG-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     additive; shampoo; soap; food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                                      (VI), LBBNZXXXXXRRK (VII) and BBXZXXZXBBB (VIII) (V), LBBNZXXXXXRRK (VII) and BBXZXXZXBBB (VIII) (V), LBBNZXXXXXXRRK (VII) and BBXZXXZXBBB (VIII) where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R; A = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or V. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANY24549 to ANY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXBB(AA)nM (II), BBBXZXXZXB (III), BXZXXZXBBBn(AA)nMILBBAGS (IV), BXZXXZXBB (AA)nM (VI), LEBNXZNXXZNRK (VII) and BXZXXZXBB (VIII).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                      materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                        fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciol controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciol hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 13;
                                                                                               Sequence
                                                                                                                                        their toxicity
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96US-0024754.
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                    100.0%;
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    Score 91; DB
Pred. No. 6.1
0; Mismatches
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                        6.1e-07;
                                           DB 19;
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                                           Length 14;
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RESULT 13
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Indolicidin: bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative; food; technical material.
                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating
                                                                       Indolicidin analogue #34.
                                                                                                      18-AUG-1999
                                                                                                                                                              AAY24582 standard;
                                                                                                                                                                                                                                                                                                                                                                                                cervix, uterus, skin,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           multidrug resistance
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breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cationic peptide; tumour; pharmaceutical composition; cancer; treatment;
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                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                    (first entry)
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                                                                                                                                                             peptide;
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                                                                                                                                                                                                                                                                                                            Score 91;
Pred. No.
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06-JUN-2000

(first entry)

Cationic peptide; tumour; pharmaceutical composition; cancer; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple n breast; lung; ovary; cervix; uterus; skin; prostate; liver; co

APO; lymphoma; multiple myeloma; skin; prostate; liver; colon;

Amino acid sequence of cationic peptide MBI 11D4CN

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Matches Query Match

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Score 91; DB 19; Pred. No. 9.1e-07;

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RESULT

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AAY91806

standard;

Peptide;

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(I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXB (II), BXZXXZXB (III), BXZXXZXBB(AA)nM(III), BABXZXXZXBK (VI), LXBAXZXXZXRK (VI), LXBAXZXXZXRK (VII) and BAZXXXZXBBB (VIII). Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic); infections caused by bacteria (Gram positive or negative, or anaerobic);
                          insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                 aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compound derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogumay be used therapeutically or to coat medical devices; also they are
                                                                                                                                                                                                                                                                                                                  fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciolihepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 13; Page 89; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New indolicidin analogues with antimicrobial activity and related nucleic acid · vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                          useful as surface disinfectants, as additives to shampoo or soaps, as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), B3
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21-AUG-1996;
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96US-0024754
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                                                                                                                                                                                                                            The analogues
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                                                                                                                                                                                                                                                                                                                                                                               This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-223549/19.
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1 ilkkwpwwpwrrk 13
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/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
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US-08-915-314-24
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US-08-915-314-42	US-08-915-314-77	US-08-702-054B-27	US-08-915-314-39	US-08-915-314-40	US-08-915-314-28	US-08-702-054B-42	US-08-702-054B-38	US-08-702-054B-2	US-08-702-054B-41	US-08-702-054B-18	US-08-702-054B-39	US-08-915-314-75	US-08-702-054B-33	US-08-915-314-67	US-08-915-314-66	US-08-915-314-25	US-08-702-054B-35
Sequence 42, Appl	Sequence 77, Appl	Sequence 27, Appl	Sequence 39, Appl	•	Sequence 28, Appl	Sequence 42, Appl		Sequence 2, Appli	•	•	•	Sequence 75, Appl	•	Sequence 67, Appl	Sequence 66, Appl	Sequence 25, Appl	Sequence 35, Appl

## ALIGNMENTS

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; TOPOLOGY: US-08-915-314-30
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Query Match
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Matches 13; Conserv
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                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
TELECHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                   TELEFAX: (206) 682-60: INFORMATION FOR SEQ ID NO:
                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
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ZIP: 98104
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STATE: Washington
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(206) 682-6031
TO NO: 30:
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Score 91; DB 4;
Pred. No. 4.9e-07;
; Mismatches 0;
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CURRENT APPLICATION UNMER: U5/08/'
APPLICATION NUMER: 20-AUG-1997
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: SEED and BERRY LLP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: NO. 6180604tenburg Ph.D., Carol REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
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                                                        APPLICANT:
                                                                    APPLICANT:
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CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                   NAME/KEY: Modified LOCATION: 1 OTHER INFORMATION:
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                                                                                                                63,
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                                                                                                  3, Application US/08915314 6180604
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Taylor, Robert
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                                       West, Michael H.P.
Krieger, Timothy J.
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COMPOSITIONS AND METHODS FOR TREATING
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MEDIUM TYPE: Floppy
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TELEPHONE: (206) 622-4900
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                               TITLE OF INVENTION: COMPUSITIONS INFECTIONS
                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy dis
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CURRENT APPLICATION DATA:
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                                                                                                                     STREET: 6300 CONTY: Seattle STATE: Washing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                           COUNTRY: U
ZIP: 98104
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13; Conserv
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Taylor, Robert
Erfle, Douglas
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                PatentIn Release #1.0, Version #1.30
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Pred. No.
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                                                                                                                                                        701 Fifth Avenue
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Matches
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
              ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604 tenburg ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: SEED and BERRY LLP
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                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: CÓMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
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                                                                                                                     APPLICATION NUMBER: FILING DATE: 20-AUG CLASSIFICATION: 424
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OTHER INFORMATION: /note= "D-Form of Lysine"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS:
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Washington
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Erfle, Douglas
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West, Michael H.P.
Krieger, Timothy J.
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20-AUG-1997
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682-6031
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                                                                      Query Match
Best Local Similarity
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Best Local
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OPERATING SYSTEM: PC-POS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
NAME: NO. 6180604tenburg Ph.D., Carol
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INFORMATION FOR SEQ ID NO: 54:
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APPLICANT:
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West, Michael H.P.
Krieger, Timothy J.
Taylor, Robert
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                                                                      100.0%; Score 91; I
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Pred. No.
                                                          Mismatches
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RESULT 7 US-08-915-314-52

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Best Local Similarity
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MEDIUM TYPE: Floppy disk
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COMPUTER READABLE FORM:
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                                                                                                                                                   ITLE OF INVENTION: CÓMPOSITIONS AND METHODS FOR TREATING ITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLIC
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                                                                                   STREET:
                                   COUNTRY:
                                                                    CITY: Seattle
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                                                                                                       DDRESSEE:
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                                                    Washington
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6300 Columbia Center, 701 Fifth Avenue
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                                                                                     E: SEED and BERRY LLP
6300 Columbia Center,
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West, Michael H.P.
                                                                                                                                                                                  Krieger, Timothy J.
Taylor, Robert
Erfle, Douglas
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                                                                                                                                                                                                                                  Fraser, Janet R. West, Michael H.P.
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20-AUG-1997
V: '
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100.0%; Pred. No
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                                                                                        701 Fifth Avenue
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Query Match
Best Local Similarity
Watches 12; Conserve
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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NAME: No. 6180604 tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 20-AUG-19-
CLASSIFICATION: 424
                                     TELEFAX: 619/678-5099
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                         COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows 95
SOFTWARE: FastSEQ for Windows Version 2.0b
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION:
                                                                                                                                               FILING DATE: 23-AUG-1995
ATTORNEY/AGENT INFORMATION:
NAME: Halle, Lisa A.
                                                                                                                                                                                                APPLICATION NUMBER: US/08
FILING DATE: 23-AUG-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/06
                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Hancock, Robert E. W.
                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                          NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 07
                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: La Jolla
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 92037
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                                                                        TELEPHONE:
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STREET: 4225 Executive Square, Suite 1400
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12 amino acids
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23-AUG-1995
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Pred. No.
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US-08-915-314-59
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CLASSIFICATION: 424

ATTORNEY/AGENT INFORMATION:

NAME: NO. 6180604tenburg Ph.D., Carol

REGISTRATION NUMBER: 39,317

REFERENCE/DOCKET NUMBER: 660081.405

TELECOMMUNICATION INFORMATION:

THE PHONE: (206) 622-4900
Sequence 59, Appli
Patent No. 6180604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.
                                                                                                                                                                       Best
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                                                                                                                                                       Matches
                                                                                                                                                                                    Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
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                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
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                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE: 20-AUC
                                                                                                                                                                                                                                                                               TYPE: amino acid
                                                                                          1 ILKKWPWWPWRR 12
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1 ILKKWPWWPWRR 12
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6180604
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               Application US/08915314
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                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                  linear
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Pred. No.
                                                                                                                                                                                  Score 86;
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                                                                                                                                                                                    DB 4;
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US-08-702-054B-40
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                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
                              COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatil
                                                                                                STREET: 422
STREET: 422
CITY: La Jolla
STATE: CA
                                                                                                                                                                        NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESS
                                                                                                                                                                                                          APPLICANT: Hancock, Robert E. W.
APPLICANT: Gough, Monisha
TITLE OF INVENTION: ANTIMICROBIAL C
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NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: (206) 622-4900
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STREET: "TTY: Seattle
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FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
                                                                                 COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 12; Conser
               OPERATING SYSTEM:
                                                                                                                                        ADDRESSEE: Fish & Richardson P.C. STREET: 4225 Executive Square, Suite 1400
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Taylor, Robert
Erfle, Douglas
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FastSEQ for Windows Version 2.0b
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West, Michael H.P.
          IBM Compatible
SYSTEM: Windows 95
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                                                                                                                                                                                                          CATIONIC PEPTIDES F SCREENING FOR TH
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Best Local Similarity 100.
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                                                                                TELEFAX: (206) 682-6031
NFORMATION FOR SEQ ID NO: 55:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENERAL INFORMATION:
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NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
LENGTH: 15 amino acids
                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: (206) 622-4900
                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy
                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: pep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 07
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619/678-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997 CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ITLE OF INVENTION:
               STRANDEDNESS:
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                                             ENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08
FTLING DATE: 23-AUG-1996
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6300 Columbia Center, 701 Fifth Avenue
                                               20 amino acids
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linear
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23-AUG-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94.5%; Score 86; DB 4; I
100.0%; Pred. No. 2.7e-06;
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Sequence 69, APP-
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                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                  TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tent No.
                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
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6300 Columbia Center, 701 Fifth Avenue
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Pred. No
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GENERAL

INFORMATION:

Application US/08915314

APPLICANT:

Fraser, Janet R. West, Michael H.P. Krieger, Timothy J

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APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INPECTIONS USING ANALOGUES OF INDOLICIDIN
NUMBER OF SEQUENCES: 90
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
CITY: Seattle
COMPUTER REDANALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER REDANALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Des Compastible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
APPLICATION NUMBER: 05/08/0915,314
FILLING DATE: 20-Nuc-1997
CLASSIFICATION: 424
APPLICATION NUMBER: 05/08/0915,314
FILLING DATE: 20-Nuc-1997
CLASSIFICATION NUMBER: 05/08/0915,314
REGISTRATION NUMBER:
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Copyright (c) 1993 - 2000 Compugen Ltd.
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OM protein protein search, using sw model

Run on: June 21, 2001, 08:31:18; Search time 20.32 Seconds (without alignments) 48.734 Million cell updates/sec

Title: Perfect score: US-09-444-281-35 91

Sequence: 1 ILKKWPWWPWRRK 13

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched:

Total number of hits satisfying chosen parameters: 219241

219241 seqs, 76174552 residues

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : PIR\_68:\* pir1:\*
pir2:\*
pir3:\*
pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

7.4	200	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	· G	4	ω	2	1	No.	Result
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RESULT 2
VGIHHC
VGIHHC
E2 glycoprotein precursor - human coronavirus (strain 229E)
N;Alternate names: peplomer glycoprotein; S glycoprotein; Spike glycoprotein
C:Species: human coronavirus
A;Note: host Homo sapiens (man)
C;Date: 31-Dec-1991 #sequence\_revision 31-Dec-1991 #text\_change 16-Jun-2000
C;Accession: A34766; S05460
C;Accession: A34765; Softelle-Prinz, B.; Siddell, S.G.

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
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VGIHL9	VGIHF1	VGIHQU	VGIHNM	A37474	S29998	JQ2168	VGIH59	VGIHMJ	A36607	S24284	A48508	F70746	C70831	E70826	S19439
E2 glycoprotein pr	E2 glycoprotein pr	E2 glycoprotein pr	E2 glycoprotein pr	surface glycoprote	surface protein -	E2 glycoprotein pr	E2 glycoprotein pr	E2 glycoprotein pr	E2 glycoprotein -	E2 glycoprotein pr	cyclic-nucleotide	probable mmpL2 pro	probable mmpL4 pro	probable membrane	probable membrane

# ALIGNMENTS

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C;Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 23-Jul-1999
C;Accession: T1505
                                                                                                hypothetical protein APE2577 - Aeropyrum pernix (strain K1)
C;Species: Aeropyrum pernix
C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 20-Aug-1999
C;Accession: B72492
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A; Residues: 1-299 <ANS>
A; Cross-references: EMBL: AL096753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Reference number: A; Accession: T12505
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F;16-1173/Product: E2 glycoprotein #status predicted <MAT>
F;1116-1138/Domain: transmembrane #status predicted <TMN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 1159-1173 <RA2>
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DNA Res. 6, 83-101, 1999
A;Title: Complete genome sequence of an au
A;Reference number: A72450; MUID:99310339
                                                                               R;Kawarabayasi,
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Cross-references: EMBL:X16816; NID:g58926;
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                                                            Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.;
Ya, M.; Masuda, S.; Funahashi, T.; Tanaka,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    adult testis; clone DKFZp434C192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59.3%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                           56.0%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                e of the gene encoding the spike glycoprotein of human MUID:90264837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                        0;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                           Score 51;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                     aerobic hyper-thermophilic Crenarchaeon,
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                                                                                                                                                                                                                                                                                                                                                        1;
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                                                                                                                                                                                                                                                                                                                                                                                               Length 299;
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                                                            Haikawa, Y.; Jin-no, T.; Kudoh, Y.; Yamaz
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                                                              Takah
J.; F
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A; Nedwork type: DNA
A; Residues: 1-298 <KAW>
A; Cross-references: DDB:AP000064; NID:g5105945; PIDN:BAA81594.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: B72492
A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Bos primigenius taurus (cattle)
C;Species: A-Jul-1994 #sequence_revision 18-Oct-1996 #text_change 16-Jun-2000
C;Date: 14-Jul-1994 #sequence_revision 18-Oct-1996 #text_change 16-Jun-2000
C;Accession: JT0751; JT0079; JS0390; S03558; PS0003; A29604; S52100
R;Takata, Y; Kono, A; Sekimizu, K; Horluchi, T.
Biol. Pharm. Bull. 16, 1200-1206, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Title: Gene structure of bovine adrenodoxin reductase A;Reference number: JT0751; MUID:94177140 A;Accession: JT0751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N; Alternate names:
C; Species: Bos prin
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A;Molecule type: protein
A;Molecule type: protein
A;Residues: 33-41,'S','43-62;260-283,'TM';496-498 <HAM>
A;Residues: 33-41,'S','43-62;260-283,'TM';496-498 <HAM>
A;Note: a cyanogen bromide peptide binds to adrenoferredoxin
R;Nonaka, Y.; Murakami, H.; Yabusaki, Y.; Kuramitsu, S.; Kagamiyama,
Biochem. Biophys. Res. Commun. 145, 1239-1247, 1987
Blochem. Biophys. Res. Commun. 145, 1239-1247, 1987
A;Title: Molecular cloning and sequence analysis of full-length cDNA
A;Reference number: A29604; MUID:87270696
                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Hanukoglu, I.; Gutfinger, T.
Eur. J. Blochem. 180, 479-484, 1989
A;Title: cDNA sequence of adrenodoxin reductase. Identification of NADP-binding sites
A;Reference number: S03558; MUID:89170752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         submitted to DDBJ, September 1989
A;Reference number: JS0390
A;Contents: revision, insertion of residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Title: Cloning and sequence analysis of adrenodoxin reductase cDNA from A;Reference number: JT0079; MUID:88198050 A;Accession: JT0079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Sagara, Y.; Takata, Y.; M
J. Biochem. 102, 1333-1336,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:D83475; NID:g1199916; PIDN:BAA11921.1; PID:g4521308
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                                                                                                                                                                                                    R;Hamamoto, I.; Kurokohchi, K.; Tanaka, S.; Ichikawa, Y.
Biochim. Biophys. Acta 953, 207-213, 1988
A;Title: Adrenoferredoxin-binding peptide of NADPH-adrenoferredoxin reductase.
A;Reference number: PS0003; MUID:88184054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Note: the deduced sequence is
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-498 <TAK>
                                                                                                                                                                                                                                                                                                                                      A;Molecule type: mRNA
A;Residues: 155-204,211-498 <HAN>
A;Cross-references: EMBL:X13736; NID:g65; PIDN:CAA32002.1; PID:g833776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Sagara,
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;Molecule type: mRNA
;Residues: 1-204,211-498 <SAG>
;Residues: 1-204,211-498 <SAG>
;Cross-references: GB:D00211; NID:g217433; PIDN:BAA00150.1;
;Cross-references: GB:D00211; NID:g217433; PIDN:BAA00150.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                Note: 405-Ser was also found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Residues: 56-498 <SA2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Molecule type:
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ed. No. 8.8; Mismatches
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                                                                                      Yamano,
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for mRNA of

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C:Keywords: alternative splicing; flavoprotein; mitochondrion; monomer; NADP; oxidoredu: F;1-32/Domain: transit peptide (mitochondrion) #status predicted <SIG>F;33-498/Product: ferredoxin-NADP+ reductase, long form #status predicted <MAT>F;33-204,211-498/Product: ferredoxin-NADP+ reductase, short form #status experimental F;40-70/Region: beta-alpha-beta FAD nucleotide-binding fold F;180-190/Region: NADP binding #status predicted F;281/Binding site: substrate (Lys) #status experimental
probable moeY protein - Mycobacterium tuberculosis (strain H37RV)
C;Species: Mycobacterium tuberculosis
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 2
C;Accession: B70741
                                                                                                                         RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                A; Note: the authors translated the C; Superfamily: myosin heavy chain; C; Keywords: ATP; surface antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
A; Residues: 1-527 <SOI>
A; Cross-references: EMBL: X65591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Induction of protective immunity A;Reference number: A46514; MUID:93056536 A;Accession: S33068
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Schistosoma mansoni
C;Date: 22-Nov-1993 #sequence_revision 06-Sep-1996 #text_change 13-Feb-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            myosin heavy chain - fluke (Schistosoma mansoni) (fragment) N:Alternate names: surface antigen, 200K
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A;Residues: 'X',34-41,'X',43-48,'X',50-51;304-306,'X',308-309,'X',311-326 <WAR>
C;Comment: Ferredoxin--NADP+ reductase is localized in the matrix of adrenal cortex mitc
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Blochim. Blophys. Acta 1246, 39-46, 1995
A; Title: Structural and functional characterization
A; Reference number: S52100; MUID:95110846
A; Accession: S52100
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Best Local
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Best Local
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5; Conserv
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                      #sequence_revision 17-Jul-1998 #text_change 22-Oct-1999
                                                                                                                                                                                                                                                                                                                  53.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in mice using a 62-kDa recombinant fragment
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hypothetical protein C50F7.8 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #t
                                                                                                                                                                                                                                             RESULT
T29295
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                                                                                                                              R; Johnson, D.; St
submitted to the
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A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S. A;Title: Deciphering the biology of Mycobacterium tuberculosis A;Reference number: A70500; MUID:98295987
A;Accession: B70741
                 A; Molecule type: DNA
A; Residues: 1-111 < JOH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Superfamily: myosin heavy chain; myosin motor domain homology F;82-752/Domain: myosin motor domain homology <MMO>
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A;Experimental source: strain Brazilian LE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C:Species: Schistosoma mansoni
C:Date: 09-Jun-2000 #sequence_revision 09-Jun-2000
C:Accession: A59287
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 A;Cross-references:
                                                    A; Status: preliminary; translated
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A; Residues: 1-1940 <WES>
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A; Accession: A59287
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Matches (
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EMBL Data Library, November ביי
he sequence of C. elegans cosmid C50F7
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EMBL: U41557; PIDN: AAA83303.1; CESP: C50F7.8
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Pred. No.
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Pred. No. 53;
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A: Residues: 1-32
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Best Local S
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;Residues: 1-114 <OLI>
;Cross-references: EMB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ubmitted to the EMBL Data Library,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;Species: Streptomyces coelicolor;Dec-1999 #text_change;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cross-references: EMBL:AL049763; PIDN:CAB42078.1; GSPDB:GN00070; SCOEDB:SCE36.09
Experimental source: strain A3(2)
                                                                                                                                                                                                                                                                       Cross-references: EMBL:X60110
                                                                                                                                                                                                                                                                                                                                Fitte: Molecular cloning and nucleotide sequence of the gene; Reference number: S23449; MUID:92249331
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Best Local
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Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 23-Mar-1993
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Gene: SCOEDB:SCE36.09
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                                                                                                   Matches
                                                                                                                                                                          Keywords: NAD;
1-248/Product:
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                                          PWWPW 183
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May 1999
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peplomeric polyprotein precursor - avian infections, E2 glycoprotein subunit S2 N;Contains: E2 glycoprotein subunit S2 C;Species: avian infectious bronchitis virus, A;Variety: strain D1466
                                                            S37664
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RESULT

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avian infectious

bronchitis virus

(strain D1466) (

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A; Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; A; Title: Deciphering the biology of Mycobacterium A; Reference number: A70500; MUID: 98295987 A; Accession: G70715
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rajandream, M.A.; Rogers, Nature 393, 537-544, 1998
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                                                                                                                                                                                                                                                                                                                                                                                                               R;Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, o, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; IDNA Res. 3, 109-136, 1996
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A;Experimental source: strain H37Rv
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                                                                                                                                                                          A; Gene: hisC-1
C; Superfamily:
                                                                                                                                                                                                                                   A;Cross-references: EMBL:D90906; GB:AB001339; A;Note: the nucleotide sequence was submitted
                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                    A;Status: nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                    A; Reference number: S74322; MUID:97061201
A; Accession: S77354
                                                                                                                                                                                                                                                                                                                                                                                                   A;Title: Sequence analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: S77354
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Variety: PCC 6803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Species: Synechocystis sp.
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RESULT 15

$37663

peplomeric polyprotein precursor - avian infectious bronchitis virus (strain D207) (frag Process: E2 glycoprotein subunit S2

C:Species: avian infectious bronchitis virus, IBV

A:Variety: strain D207

C:Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 20-Sep-1999

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Search completed: June 21, 2001, 08:33:57 Job time: 159 sec
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A; Residues: 1-621 <KUS>
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Description
INDC_BOVIN
INDC_BOVIN
INDC_BOVIN  VGL2_CVH22  P3046 bos ta  VGL2_CVH22  P15423 human  ADRO_BOVIN  P01615 bos ta  P055_MYCTU  P1554 mycoba  VGL2_IBVB  VGL2_IBVB  VGL2_IBVB  VGL2_IBVB  VGL2_IBVB  P1123 avian  VGL2_IBVB  P12651 avian  P1
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Raabe T., Schelle-Prinz B., Siddell S.G.;
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J. Gen. V1rol. 71:1065-1073(190).
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AND IN SYNCYTIUM FORMATION.
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                        TISSUE-Adrenal cortex;
MEDLINE-89170752; PubMed-2924777;
Hanukoglu I., Gutfinger T.;
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                                                                                                                                                                                                                                                                                                                                                            "Cloning and sequence analysis bovine adrenal cortex.";
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01-AUG-1988 (Rel. 08, Created)
15-UTL-1998 (Rel. 36, Last sequence update)
10-CCT-2000 (Rel. 40, Last annotation update).
NADPH:ADRENODOXIN OXIDOREDUCTASE, MITOCHONDRIAL PRECURSOR (EC 1.18.1.2) (ADRENODOXIN REDUCTASE) (AR) (FERREDOXIN-NADP(+) REDUCTASE).
of adrenodoxin oxidoreductase from bovine adrenal cortex."; Biochem. Biophys. Res. Commun. 145:1239-1247(1987).
                                                                                                                                                                                                              SEQUENCE FROM N.A., AND ALTERNATIVE SP
MEDILINE-94177140; PubMed-8130767;
Takata Y., Sagara Y., Kono A., Sekimiz
"Gene structure of bovine adrenodoxin
Biol. Pharm. Bull. 16:1200-1206(1993).
                           Yamano T., Okamoto M.;
"Molecular cloning and sequence analysis of full-length cDNA for mRNA
                                                                     SEQUENCE FROM N.A. MEDLINE-87270696; PubMed-3038094;
                                                                                                                . Blochem. 102:1333-1336(1987).
                                                                                                                                                         ROM N.A., AND PARTIAL S
198050; PubMed=3448086;
Takata Y., Miyata T.,
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PIR; JS0390; JS0390.
PIR; S03558; S03558.
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                                                                       CONFLICT
CONFLICT
                                                                                                         CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=88082777; PubMed=3691502;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-Adrenal cortex;
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                                                                                                                                                                                                                                                                                                                                                                 curries requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                     PDB; 1CJC; 12-APR-99.
PDB; 1E1L; 02-JUN-00.
                                                                                                                                                                                                                                                                                                                                                                                                               use
                                                                                                                                                                                                                                                                                                                                                                                                                           the
                                                                                                                                             CONFLICT
                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                         Mitochondrion;
                                                                                                                                                                                                                   Electron
                                                                                                                                                                                                                                PRINTS; PRO0419; ADXRDTASE
                                                                                                                                                                                                                                            InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                       between
                                                                                                                                                                                             TRANSIT
                                                                                                                                                                    /ARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: MITOCHONDRIAL MATRIX.
ALTERNATIVE PRODUCTS: 2 ISOFORMS; A SHORT FORM (SHOWN HERE) AND A LONG FORM; ARE PRODUCED BY ALTERNATIVE SPLICING. THE LONG FORM REPRESENTS 10-20% OF ALL ADRENODOXIN REDUCTASE MRNA. AND SEEMS TO BE INACTIVE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PATHWAY: CHOLESTEROL SIDE-CHAIN-CLEAVAGE SYSTEM SUBUNIT: MONOMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADRENODOXIN + NADPH.
COFACTOR: FAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LIVER.

CATALYTIC ACTIVITY: REDUCED ADRENODOXIN + NADP(+) -
                                                                                                                                                                                                                                                                                                                                                                                                                           European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation. European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way field and this statement is not removed. Usage by and for commercial field and this statement is not removed. Usage by and for commercial
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  Similarity 5; Conser
                                                                                                                                                                                                                   transport; Oxidoreductase; Flavoprotein; NADP;
                                                                                                                                                                                                                                            IPR000759;
                                                         341
492
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  Conservative
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180:479-484(1989).
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492
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77
94
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268
318
333
             53.8%;
83.3%;
                                                                                                                                                                                                         peptide; Alternative splicing;
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             Score 49;
Pred. No.
                                                            K -> R (IN REF. 3).
PS -> Rt (IN REF. 3).
RAAGIRLAVTR -> ARRSAWQSPE (IN REF.
TRAVPTGDVEDL -> HPGSAHWGCGGP (IN R
E68F6F5D18F53131 CRC64;
                                                                                                                                              G -> R (IN REF. 3)
FGVAPDHPEVKNVI -> VWLALTTPRSRMLL (IN
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                                                                                                                       QDAYH ->
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     Mismatches
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IN REF. 3).
                          DB 1;
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     Indels
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Y945_MYCTU
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01-OCT-1996
30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COLE S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris Gordon S.V., Elglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Oliver S., Seger K., Skelton S., Squares S., Squres R., Sulston J. Taylor K., Whitchead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence."; Nature 393:537-544 (1998).
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30-MAY-2000 (Rel. 39, Last annotation
HYPOTHETICAL 78.2 KDA PROTEIN RV1355C.
RV1355C OR MTCY02B10.19C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-H37RV
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                                                                                                                                   Y945_MYCTU STANDARD; PRT; 253 AA. P71564; P1564; O1-NOV-1997 (Rel. 35, Created) O1-NOV-1997 (Rel. 35, Last sequence update) 30-MAY-2000 (Rel. 39, Last annotation update) PUTATIVE OXIDOREDUCTASE RV0945 (EC 1.-.-)
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                                                                                  RV0945 OR MTCY10D7.29C. Mycobacterium tuberculosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TubercuList; Rv1355c;
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                                                       Bacteria; Firmicutes; Actinobacteria;
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Actinomycetales;
NCBI_TaxID=1773;
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                             Corynebacterineae;
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Coronaviridae; Cor
NCBI_TaxID-11124;
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Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris D.
Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F.,
Badcock K., Basham D., Brown D., Chillingworth T., Connor R.,
Badcock K., Basham D., Brown D., Chillingworth T., Connor R.,
Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S.,
Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L.,
Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J.,
Rutter S., Seeger K., Skelton S., Squares S., Squares R., Sulston J.E.
Taylor K., Whitehead S., Barrell B.G.;
Tectphering the biology of Mycobacterium tuberculosis from the
complete genome sequence.";
Nature 393:537-544(1998).

1- SIMILARITY: BELONGS TO THE SHORT-CHAIN DEHYDROGENASES/REDUCTASES
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                                                                                                                                                                                                                                                                                                                                                                                                                             IBVD2
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PROSITE; PS00061; ADH_SHORT; 1.
Hypothetical protein; Oxidoreductase ACT_SITE 159 159 BY SIMII SEQUENCE 253 AA; 27138 MW; BAD937
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TubercuList; Rv0945; -.
InterPro; IPR002198; -.
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the European Bioinformatics Institute. The
use by non-profit institutions as incommodified and this statement is not removed.
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or send an email to license@isb-sib.ch).
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STRAIN-H37RV;
MEDLINE-98295987;
                                                                            MEDLINE-89386000; PubMed-2550899;
Jordi B.J.A.M., Kremers D.A.W.M., Kusters H.G., van der Zei Nucleotide sequence of the gene coding for the peplomer propiety protein) of infectious bronchitis virus, strain D274. Nucleic Acids Res. 17:6726-6726(1989).

-I- FUNCTION: THE PEPLOMER PROTEIN MEDIATES THE BINDING OF TO THE HOST CELL RECEPTOR AND IS INVOLVED IN MEMBRANE F
                                                                                                                                                                                                SEQUENCE FROM N.A.
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                 European Bioinformatics Institute.
                                SWISS-PROT entry is copyright. It is produced through a collaboratic een the Swiss Institute of Bioinformatics and the EMBL outstation
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aviridae; Coronavirus.
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5; Conserv
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strain D274.";
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RESULT 7

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AC P11223; P05134;

DT 01-JUL-1989 (Rel. 11, Created)

DT 01-JUL-1989 (Rel. 11, Last sequence update)

DT 15-JUL-1999 (Rel. 38, Last annotation update)

DE E2 GLYCOPROTEIN PRECURSOR (SPIKE GLYCOPROTEIN)

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Binns M.M., Boursnell M.E.G., Tomley F.M., Brown D.K.;
Binns M.M., Boursnell M.E.G., Tomley F.M., Brown D.K.;

"Comparison of the spike precursor sequences of coronavirus IBV

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Virology 165:589-595(1988).
-I- FUNCTION: THE PEPLOMER PROTEIN MEDIATES
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Sutou S., Sato S., Okabe T., Nake
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-i- FUNCTION: THE PEPLOMER PROTEIN MEDIATES THOUSE TO THE HOST CELL RECEPTOR AND IS INVOLVED
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EMBL; A24863; CAA01736.1;
PIR; S07421; S07421.
InterPro; IPR002551; -.
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TEIN PRECURSOR (SPIKE GLYCOPROTEIN)
SPIKE PROTEIN S1; SPIKE PROTEIN S2]
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"Comparison of the spike precursor sequences of coronavirus
strains M41 and 6/82 with that of IBV Beaudette.";
J. Gen. Virol. 67:2825-2831(1986).
-j- FUNCTION: THE PEPLOMER PROTEIN MEDIATES THE BINDING OF V
TO THE HOST CELL RECEPTOR AND IS INVOLVED IN MEMBRANE FU
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MEDLINE-87085499; PubMed-3025348;
                                                                                          Pfam; PF01600; Corona_S1;
Pfam; PF01601; Corona_S2;
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Eukaryota; Fungi; Ascomycota; Schizosaccharomycetes;
Schizosaccharomycetales; Schizosaccharomycetaceae;
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                                                                      Connor R., Churcher C.M., Submitted (MAY-1995) to t -- i- SIMILARITY: STRONG, T
                                                                                                                     Schizosaccharomyces.
NCBI_TaxID=4896;
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MYCTU
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01-OCT 1996 (Rel. 34, Last sequence up
30-MAY-2000 (Rel. 39, Last annotation
PUTATIVE MEMBRANE PROTEIN MMPL6.
MMPL6 OR RV1557 OR MTCY48.08C.
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MEDLINE-9825987: PubMed-9634230:

MEDLINE-9825987: PubMed-9634230:

Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III. Tekkia F., Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III. Tekkia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd Davies R., Devlin K., Krogh A., McLean J., Moule S., Murphy L., Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Cliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., State S., Squares S., Squares R., Sulston S., Squares S., Squares R., Sulston S., Squares 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rutter S., Seeger K., Skelton S., Squares Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium complete genome sequence."; Nature 393:537-544(1998). INTEGRAL MEMBRAN -1- SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Actinomycetales;
NCBI_TaxID=1773;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Rv1557; -.
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01-MAY-1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           J. Bacteriol. 173:463-471(1991).
-I- CATALYTIC ACTIVITY: CHORISMATE + L-GLUTAMINE - ANTHRANILATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       da Costa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                savastanoi.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID-29438;
                                                                                                                                                                                                                                                                                                                                                                                                                 entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                               Tryptophan blosynthesis; Lyase. SEQUENCE 505 AA; 56084 MW;
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Pfam; PF00425; chorismate_bind;
PRINTS; PR00095; ANTSNTHASEI.
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                                                                                                                                                                                                                                                                                                                                                                                            EMBL; M55911; AAA26016.1;
                                                01-MAY-1992 (Rel. 22, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
PROBABLE TRANSPORTER FEN2.
FEN2 OR YCR028C OR YCR28C.
                                                                                                      P25621;
01-MAY-1992
Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
NCBI_TaxID-4932;
                                                                                                                                           YEAST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MISCELLANEÓUS: COMPONENT I CATALYZES THE FORMATION OF ANTHRANILATE USING AMMONIA RATHER THAN GLUTAMINE, WHEREAS COMPONENT II PROVIDES GLUTAMINE AMIDOTRANSFERASE ACTIVITY.
SIMILARITY: BELONGS TO THE ANTHRANILATE SYNTHASE COMPONENT I
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PYRUVATE + L-GLUTAMATE.
PATHWAY: FIRST STEP IN BIOSYNTHESIS
SUBUNIT: TETRAMER OF TWO COMPONENTS
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SEQUENCE FROM N.A.
Cederberg H., Hohmann
Zimmermann F.K.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Nucleotide sequence of 9.2 kb left of CRYl on from strain AB972: evidence for a Ty insertion analysis of open reading frame YCR28."; yeast 8:805-812(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Marcireau C., Joets J., Pousset D., Guilloton M., Karst F.;
Marcireau C., Joets J., Pousset D., Guilloton M., Karst F.;
Marcireau C., Joets J., Pousset D., Guilloton M., Karst F.;
regulation of ergosterol biosynthesis in yeast.";
reast 12:531-539(1996).
regulation of ergosterol biosynthesis and IN FENPROPIMORPH
REGULATION OF ERGOSTEROL BIOSYNTHESIS AND IN FENPROPIMORPH
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MEDLINE=94147996; PubMed=8313894;
KOOnin E.V., Bork P., Sander C.;
"Yeast chromosome III: new gene functions.";
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SIMILARITY: BELONGS TO THE ALLANTOATE PERMEASE FAMILY.
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"Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.";
Nature 393:537-544(1998).

1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).
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Mycobacterium tuberculosis.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
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30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
PUTATIVE MEMBRANE PROTEIN MMPLS.
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09dt80 tt virus o
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Q9y4n1 homo sapien
Q26590 schistosoma
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Q19573 caenorhabdi
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TT virus.
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Kishinoto J., Tanaka T., Miyakawa Y., M
"Species-specific TT viruses in humans
phylogenetic relatedness.",
Virology 277:368-378(2000).
EMBL; AB041959; BAB19313.1; -
EMBL; AB041959; BAB19313.1; -
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Submitted (APR-2000)
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"Sequence of the spike
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MEDIJINE-93389433; PubMed-8397280;
MEDIJINE-93389433; PubMed-8397280;
MEDIJINE-93389433; PubMed-8397280;

"Sequence determination of the nucleocapsid protein gene of the "Sequence determination of the nucleocapsid protein virus is a porcine epidemic diarrhoea virus confirms that this virus is a porcine epidemic diarrhoea virus coronavirus 229E and porcine coronavirus related to human coronavirus.";

Transmissible gastroenteritis virus.";

J. Gen. Virol. 74:1795-1804(1993).
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SEQUENCE
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01-OCT-2000
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pfam; pF01601; Corona_S2; 1.
CONFLICT 422 422
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InterPro; IPR002552;
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EMBL; Z25483; CAA80971.1;
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                                                                                                                        Okamoto
                                                                                                                                                                                  SEQUENCE FROM
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NCBI_TaxID=68887;
      SEQUENCE FROM N.A. STRAIN-TJN02;
                                                                                                                                                          STRAIN-TJN02;
                                                                                         Submitted (JUN-1999)
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K., Bridgen A.,
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741C84D5DD3BDC4D CRC64;
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01-MAR-2001 (TIEMBLIEL. 16, Last sequence update)
01-MAR-2001 (TIEMBLIEL. 16, Last annotation updat
CONSERVED HYPOTHETICAL MEMBRANE PROTEIN.
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Archaea; Euryarchaeota; Thermoplasmales; Thermoplasmaceae;
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09Y4N1;
01-NOV-1999
01-MAY-2000
01-MAY-2000
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MEDLINE 20479972; PubMed=11029001;
Ruepp A., Graml W., Santos Martinez M.-L., Koretke K.K., Volker C.,
Mewes H.-W., Frishman D., Stocker S., Lupas A.N., Baumeister W.;
Mewes H.-W., Frishman D., Stocker S., Lupas A.N., Baumeister W.;
The genome sequence of the thermoacidophilic scavenger Thermoplasma
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EMBL; AL445064; CAC11612.1;
InterPro; IPR000731;
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                                                                                                                                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
TISSUE-TESTIS;
Ansorge W., Wirkner U.,
Submitted (JUN-1999) to
                                                                                                                                                                                                                                                                                              DKFZP434C192.
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                                                                                                                                                                                                                                                                Homo sapiens
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                                                                                              SEQUENCE FROM N.A.
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AB028669; BAA94878.1;
NCE 746 AA; 88561 M
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                                                                                                                                                                            . (Human).
Metazoa; Chordata; C
Metazoa; Primates; (
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(TremBirel. 13, Last sequence up)
(TremBirel. 13, Last annotation)
. 34.0 KDA PROTEIN (FRAGMENT).
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66.7%;
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the EMBL/Ger
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Pred. No.
             ≥s H.W., Gassenhuber J., Wiemann
EMBL/GenBank/DDBJ databases.
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Catarrhini;
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Best Local
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01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
HYPOTHETICAL 33.7 KDA PROTEIN APE2577.
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NON_TER
SEQUENCE
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Eukaryota; Metazoa; Platyhelminthes; Rhabditophora;
Trematoda; Digenea; Strigeidida; Schistosomatoidea;
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01-NOV-1996 (TYEMBLEEL 01, La
01-OCT-2000 (TYEMBLEEL 15, La
MYOSIN HEAVY CHAIN (FRAGMENT)).
                  Kawarabayasi Y., Hino Y., Horikawa H., Yamazaki S., Haikawa Jin no K., Takahashi M., Sekine M., Baba S.-I., Ankai A., Ku Hosoyama A., Fukui S., Nagai Y., Nishijima K., Nakazawa H., Takamiya M., Masuda S., Funahashi T., Tanaka T., Kudoh Y., Yamazaki J., Kushida N., Oguchi A., Aoki K.-I., Kubota K., Nakamura Y., Nomura N., Sako Y., Kikuchi H.;
                                                                                                                                                                                                                                                908760
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Schmitz J., Symmons P., Dargatz H., Kunz W.; Submitted (FEB-1992) to the EMBL/GenBank/DDBJ databases. EMBL; M81338; AAA29906.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schistosoma
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NON_TER 1
SEQUENCE 299 AA;
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                                                                                      MEDLINE-99310339; PubMed-10382966;
                                                                                                   STRAIN-K1;
                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                  NCBI_TaxID=56636;
                                                                                                                                             Aeropyrum
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           "Complete genome sequence of
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148
148 AA;
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85.7%;
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Last annotation update)
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Pred. No.
an aerobic hyper-thermophilic
ix Kl.";
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Schistosomatidae;
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RESULT Q26589 ID Q2 AC Q2 DT 01

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SEQUENCE
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01.NOV-1996 (TrEMBLrel. 01, Last sequence update)
01.VUN-2000 (TrEMBLrel. 14, Last annotation update)
SIMILARITY TO 9 AMINO ACID REPEATS IN GALACTOSE SPECIFIC LECTINS
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                                                                                                          Waterston R.;
Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases
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Eukaryota; Metazoa; Nemat
Rhabditidae; Peloderinae;
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EMBL; AP000064; BAA81594.1;
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                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                          Favello
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                                                                                                                                                                                    SEQUENCE FROM N.A.
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5; Conserv
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                                                                                        467 AA;
                                       Conservative
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                                       Mismatches
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STRAIN-PUERTO RICAN;
MEDLINE-93056536; PubMed-1431131;
MEDLINE-93056536; PubMed-1431131;
                                               SEQUENCE FROM N.A.
SERAIN-CHINESE MAINLAND STRAIN;
STRAIN-CHINESE MAINLAND STRAIN;
STRAIN-CHINESE MAINLAND STRAIN;
MEDLINE-99144454; PubMed-9990643;
Zhang Y.B., Taylor M.G., Bickle Q.D.;
Zhang Y.B., Taylor M.G., Bickle Q.D.;
Schistosoma japonicum myosin: cloning, expres
"Schistosoma japonicum myosin: cloning, expres
studies with the homologue of the S.mansoni my
parasite Immunol. 20:583-594(1998).
EMBL; US5313; AACG2221.1; -.
HSSP; P08799; 1MMD.
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Eukaryota; Metazoa; Platyhelminthes; Rhabditophora;
Trematoda; Digenea; Strigeidida; Schistosomatoidea;
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01-MAR-2001 (TrEMBLrel. 16, Last
MYOSIN II HEAVY CHAIN (FRAGMENT)
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Submitted (APR-1992) to
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pfam; pr00612; IQ; 1.
pfam; pr01576; Myosin_tail; 1.
prints; pr0194; TROPOMYOSIN.
pr0SITE; PS00182; GLWA_ADENYLA
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01-MAR-2001 (TrEMBLrel. 16, La
MYOSIN HEAVY CHAIN (FRAGMENT)
Schistosoma japonicum (Blood
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01-MAY-2000
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Schistosomatidae;
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Schistosomatidae;
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Kishimoto J., Tanaka T., Miyakawa
"Species-specific TT viruses in hu
phylogenetic relatedness.";
Virology 277:368-378 (2000).
EMBL; AB041957; BAB19308.1; -
SEQUENCE 735 AA; 86132 MW; 9EL
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Okamoto H.;
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             Schistosoma japonicum (Blood fluke).
Eukaryota; Metazoa; Platyhelminthes; Rhabditophora;
Trematoda; Digenea; Strigeidida; Schistosomatoldea;
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Miyakawa Y., Mayumi M.
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PRINTS; PR00194; TROPOMYOSIN.
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Interpro; IPR000533; ...
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01-NOV-1996
01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Puyesky M., Benhamou N., Ponce Noyola P., Bauw G., Ziv T. van Montagu M., Herrera Estrella A., Hornitz B.A.; "Developmental regulation of a gene encoding a multidoma: conidiospore surface protein of Trichoderma, cmpl."; submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases. EMBL; AJJ33651; CAB40845.1; -
SEQUENCE 1245 AA; 135824 MW; 3249C749AFAOCDF8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9Y7V5
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HSSP; P08799; 1MMD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                          1185 RWQWWSWPRR 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Fungi; Ascomycota;
NCBI_TaxID=5544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-ATCC 32173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Trichoderma harzianum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONIDIOSPORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :|: ||||
146 VLRNWPWW 153
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                                                                                                             002456;
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les 5; Conserv
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5; Conservative
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5 (TrEMBLrel. 01, 5 (TrEMBLrel. 01, 16, 16,
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(TTEMBLrel. 12, Last sequence update)
(TTEMBLrel. 12, Last annotation update)
E SURFACE PROTEIN.
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92440 MW;
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       Last sequence update)
Last annotation update)
                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 49;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mitosporic Ascomycota; Trichoderma
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RESULT
Q9DT80
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                                                                                                                          Best Local Similarity Matches 5; Conserv
                                                                                                                                                Query Match
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Eukaryota; Metazoa;
Trematoda; Digenea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-BRAZILIAN LE;
MEDLINE-93211444; PubMed-8459827;
Weston D.S., Schmitz J., Kemp M., Kunz W.;
"Cloning and sequencing of a complete myosin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MYOSIN HEAVY CHAIN
                                                                                                                                                                                 NP_BIND
ACT_SITE
ACT_SITE
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=6183
                                                                                                                                                                                                                                                                                                            pfam; PF00612; IQ; 1.
pfam; PF01576; MyOSIN_tail; 1.
pRINTS; PR00193; MYOSINHEAVY.
PRODOM; PD000355; -; 1.
PROSITE; PS00182; GLNA_ADENYLATION; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; L01634; AAA29905.1; HSSP; P08799; IMND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
Q9DT80 PRELIMINARY;
Q9DT80;
01-mar-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                  SMART; SM00015; IQ;
                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00063; myosin_head; l.
                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                      Myosin; Muscle protein;
                                                                                                                                                                                                                                                                                                                                                                                  InterPro;
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                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                    interPro;
                                                                               809 VLRNWPWW
                                                                                                                                                                                                                                                                                                                                                                                                                                                           MISCELLANEOUS: THE RODLIKE TAIL SEQUENCE IS HIGHLY REPETITIVE, SHOWING CYCLES OF A 28-RESIDUE REPEAT PATTERN COMPOSED OF 4 SHOWING CYCLES OF A 28-RESIDUE REPEAT PATTERN COMPOSED OF 4 SHOWING CYCLES OF A 28-RESIDUEAL PATTERN COULDS. OF SIMILARITY: THE GLOBULAR HEAD AS SEQUENCE SHOWS A HIGH DEGREE OF SIMILARITY WITH THE GLOBULAR HEAD SEQUENCES OF MUSCLE & NONMUSCLE HEAVY CHAINS. BY CONTRAST THE ROD SEQUENCE IS LESS CONSERVED, BUT THE PERIODICITIES OF HYDROPHOBIC & CHARGED RESIDUES, WHICH DICTATE THE ALPHA-HELICAL COILED-COIL STRUCTURE, ARE CONSERVED.
                                                                                                    1 ILKKWPWW 8
                                                                                                                                                                                                                                                                          repeat pattern
                                                                                                                                                                                                                                                                                                                                                                                                       IPR000048; -. IPR000122; -. IPR001609; -.
                                                                                                                                                                                                                                                                                                                                                                                 IPR002928; -
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                                                                                                                                                                                    1922
172
682
692
1940
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                                                                                                                             Conservative
                        PRELIMINARY;
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179
682
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Platyhelminthes; Rhabditophora; Neodermata;
Strigeidida; Schistosomatoidea; Schistosomatidae;
                                                                                                                                        53.8%;
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                                                                                                                                                                                                                                                                                        Coiled coil; Actin-binding; ATP-binding;
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                                                                                                                             Score 49; DB 5;
Pred. No. 1e+02;
2; Mismatches
                                                                                                                                                                                    DOMAINS).

NONHELICAL TAILPIECE.

ATP (BY SIMILARITY).

FOR ATPASE ACTIVITY (POTENTIAL).

FOR ATPASE ACTIVITY (POTENTIAL).

MW; 10FC4EAE208CA365 CRC64;
                                                                                                                                                                                                                                                        ALPHA-HELICAL
                                                                                                                                                                                                                                                                    GLOBULAR HEAD
                           PRT;
                           49
                           3
                                                                                                                                                                                                                                                        (S1).
RODLIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  heavy
                                                                                                                                                    Length 1940;
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                                                                                                                                  Gaps
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16,

Created)

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DT 01-MAR-2001 (TREMBLrel. 16, Last sequence update)
DT 01-MAR-2001 (TREMBLRel. 16, Last annotation update)
DE ORF1 (FRAGMENT).

OS TT virus.
OC Viruses; ssDNA viruses; unclassified ssDNA viruses.
OC Viruses; ssDNA viruses; unclassified ssDNA viruses.
OX NCBL_TAXID=68887;
RN [1]
RP SEQUENCE FROM N.A.
RP SEQUENCE FROM N.A.
RC STRAIN=TYM9;
RX MEDLINE-20568739; PubMed-11118348;
RA Okamoto H., Nishizawa T., Tawara A., Takahashi M., Kishimoto J.,
RA Okamoto H., Nishizawa T., Tawara A., Takahashi M., Kishimoto J.,
RA Okamoto H., Nishizawa T., Tawara A., Takahashi M., Kishimoto J.,
RA Sai T., Sugai Y.;
RT "TT virus mRRAS detected in the bone marrow cells from an infected individual.", Sugai Y.;
RT "TT virus mRRAS detected in the bone marrow cells from an infected inchem. Biophys. Res. Commun. 279:700-707(2000).
RE EMBL; ABO50449; BAD1930.1; -.
RE EMBL;
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Minimum DB :
Maximum DB :
                                                                                                                                                                                                                                                                  Result
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Maximum Match 100%
Listing first 45 summaries
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Sequence:
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                                                                                                                                                                                                                                            Score
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length: 2000000000
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Match Length
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86
1 ILRWPWWPWRRK 12
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Gapop 10.0 , Gapext 0.5
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AAY94496
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AAY91798
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Amino acid sequenc
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18	18	18	21	19	21	19	21	19	21	19	21	21	21	19	19	19	21	21	21	19	19	19	21	21	19	19	21	21	19	19	21	19	21
89	AAW12895	87	AAY91804	AAY24580	AAY91790	AAY24569	AAY91828	AAY24586	AAY91786	AAY24565	AAY91848	AAY91845	AAY91785	AAW66361	AAY24601	AAY24598	AAY91851	AAY91850	AAY91843	AAY24604	AAY24603	AAY24596	AAY91852	AAY91842	AAY24595	AAY24605	AAY91841	AAY91817	AAW66364	AAY24594	AAY91788	N	180
Antimicrobial cati	٠.,	icrobi	acid s	icidin	o acid s	icidin	acid s	icidin	acid s	icidin	acid	acid s	o acid s	idin	icidin	icidin	acid	acid s	cid s	'n	icidin	icidin	acid s	o acid:	licid	icidin	acid s	o acid s	licidin analo	icidin	o acid sequen	icidin	Amino acid sequenc

## ALIGNMENTS

RESULT AAY24550

AAY24550;

AAY24550 standard; peptide;

12 AA

X X X New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also Indolicidin; bacterial infection; photo-oxidised solubiliser; antinicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative; food; technical material. WPI; 1998-169090/15. Erfle D, 13-JAN-1997; 21-AUG-1996; (MICR-) MICROLOGIX BIOTECH INC 21-AUG-1997; 26-FEB-1998 WO9807745-A2 Synthetic. 18-AUG-1999 Indolicidin analogue #2. Fraser JR, (first entry) 97US-0034949. 96US-0024754. 97WO-US14779 Krieger TJ, Taylor R, West MH;

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££x8x888888888888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cc fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola cureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds cc derived from the analogues may be used similarly; the compounds may cc also be prepared from antibiotics or antiarrythmic agents. The analogues cc may be used therapeutically or to coat medical devices; also they are cc may be used therapeutically or to coat medical devices; also they are insecticides or herbicides, or as additives to shampoo or soaps, as consection as surface disinfectants, as additives for foods and technical insecticides or herbicides, or as preservatives for foods and technical creativity than indolicidin and modification as compounds spectrum of activity than indolicidin and modification as compounds
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AAY94496
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             where 2 = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 2 X = F or Y. The analogues are used to treat in (VIII) at least 2 X = F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic); infections caused by bacteria (Gram positive or negative, or anaerobic);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 11; Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (I)-(VIII) containing up to (II), BBBXZXXZXB (III), BXZ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY94496 standard; Peptide; 12 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY94496;
                                                                                                                                                                                                                                                                                                                                                     Cellulose binding domain; CBD; MBI-11B7; indolicidin; bovine.
                                                                                                                                                                                                                                                                                                                                                                                                                                         20-SEP-2000
                                                                                                                                                                                                                                                                                                                      Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                        MBI-11B7 peptide
                                                                                                                                                                                                                                                    02-JUN-2000
                                                                                                                                                                                                                                                                                     WO200031279-A2
                                                                                                                                                                                                                      19-NOV-1999;
                                                                                                                                                (MICR-) MICROLOGIX BIOTECH INC
                                                                                 WPI; 2000-400086/34
                                                                                                                                                                                     20-NOV-1998;
                               Multi-domain fusion protein expression cassette used stable production of foreign peptide gene products -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LBBnxznxxznxrk (VI), LKnxzxxzxrkk
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12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
   Page 24; 73pp; English
                                                                                                                                                                                        98US-0109218
                                                                                                                                                                                                                          99WO-CA01107
                                                                                                                                                                                                                                                                                                                                                                                                          derived from indolicidin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ), BXZXXZXBBBn(AA)nMILBBAGS (IV), BXZXXXXBB(AA)nM
VI), LKDXZXXZXRRK (VII) and BBXZXXZXBBB (VIII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              indolicidin analogues of formulae amino acids (aa): RXZXXZXB (I), B)
                                                                                                                                                                                                                                                                                                                                                                              cationic peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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3.1e-06;
hes 0;
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                                                                    for
                                                                     high yield
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of anionic peptide sequences in the linker sequences neutralises the obsitive charge of the cationic peptide so that the charge of the positive charge of the controlled. This cassette allows high yield, stable production of the cationic peptide. Cationic peptides such as production of the cationic peptide. Cationic peptides such as bowine indolicidin may be used as antimicrobial agents. The present bowine indolicidin may be used as antimicrobial agents. The present bowine is the MBI-11B7 peptide. MBI-11B7 is a cationic peptide derived sequence is the MBI-11B7 peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A novel method allows the efficient production of cationic peptides recombinant host cells. The method involves construction of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           multi-domain fusion protein expression cassette comprising a promoter and a nucleic acid molecule expressed as an insoluble protein. The inclusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Amino acid sequence of cationic peptide MBI 1187CN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              leukaemia; polyoxyalkylene-modified; APO; breast; lung; ovary; cervix; uterus; skin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   multidrug
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9965506-A2
                                                        This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically languages and languages and languages.
                                                                                                                                                                                                                                            Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating polyoxyalkylene-modified cationic peptides.
                                                                                                                                                                                                                                                                                                                                                                                               12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                 14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-DEC-1999
                                                                                                                                                                                                                                                                                               WPI; 2000-223549/19
                                                                                                                                                                                                 claim 1;
                                                                                                                                                                                                                                                                                                                                Friedland
                                                                                                                                                                                                                                                                                                                                                             (MICR-) MICROLOGIX BIOTECH INC.
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                                cervix, uterus, skin,
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                                                 ymphoma,
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12; Conserv
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nilarity 100.0%;
Conservative 0
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                                                                                                                                                                                                 Page 14; 94pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     resistance.
                                   leukaemia, multiple myeloma, or tumours terus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                    9805-0096541
                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-CA00552
                                                                                                                                                                                                                                                                                                                                   Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tumour; pharmaceutical composition; cancer; treatmel
yalkylene-modified; APO; lymphoma; multiple myeloma;
ry; cervix; uterus; skin; prostate; liver; colon;
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pred. No. 3.1e-06;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                        Taylor
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AAY24553
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Best Local :
                                                                                                                                                                                                                                                                            AAY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXBB(AA)nMILBAGS (IV), BXZXXZXBB(AA)nM (V), EBBXZXXXXBB (II), BXZXXZXBBB (AA)nMILBAGS (IV), BXZXXZXBBA (AA)nMILBAGS (IV), BXZXXZXBBA (VII), BBXZXXXXBBB (VIII), BBXZXXXXBBB (VIII), BBXZXXXXXBBB (VIII), Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or I; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues age used to treat infections caused by bacteria (Gram positive or hegative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klabsiella pneumoniae, Bordetella pertussis, Staphylococcus
materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1\text{-}50~\text{mg/kg}. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                      hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 11; Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1998-169090/15
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21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-AUG-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MICR-) MICROLOGIX BIOTECH INC.
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nes 12; Conserv
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96US-0024754.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A
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. 3.1e-06;
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PR PR

RESULT AAY24552

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                                    Query Match
Best Local Similarity
                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                     can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically
                                                                                                                                                                                                                                                                            Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cationic peptide; tumour; pharmaceutical composition; cancer; trea leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myelo breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; multidrug resistance.
                                                                                        Sequence
                                                                                                             lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                This sequence represents a cationic peptide amino acid sequence, which
                                                                                                                                                                                                                                        Disclosure; Page 15;
                                                                                                                                                                                                                                                                                                                  WPI; 2000-223549/19
                                                                                                                                                                                                                                                                                                                                                                                                                    14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                           Friedland HD,
                                                                                                                                                                                                                                                                                                                                                                                            12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                               23-DEC-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9965506-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Amino acid sequence of cationic peptide MBI 11B17CN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY91797;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY91797 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                    (MICR-) MICROLOGIX BIOTECH INC
1 ILRWPWWPWRRK 12
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12; Conserv
                                                                                        20 AA;
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                           Conservative
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                                                                                                                                                                                                                                                                                                                                           Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                                                            98US-0096541
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                                     100.0%;
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                                                                                                                                                                                                                                        94pp; English
                           0;
                                                                                                                                                                                                                                                                                                                                           Taylor R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                     Score 86;
Pred. No.
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Pred. No. 5.1e-06;
                           Mismatches
                                                                                                                                                                                                                                                                                                                                           Erfle D,
                                       5.1e-06;
                                                  DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            composition; cancer; treatment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lymphoma; multiple myeloma;
                                                                                                                                                                                                                                                                              optionally useful for
                                                Length
                                                                                                                                                                                                                                                                                                                                            Fraser
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                           Indels
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                                                                                                                                                                                                                                                                              activated treating tumours
                                                                                                                                                                                                                                                                                                                                            JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
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                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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AAY24552 standard; peptide; 21 AA.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative;
                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 additive; shampoo; soap;
food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indolicidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W09807745-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Brypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Brypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Trypanosoma, Ascaris lumbricoiceus hepatica, Kiebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may derived from antibiotics or antiarrythmic agents. The analogues also be prepared from antibiotics or antiarrythmic agents. The analogues also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I) BXZXXZXB (II), BXZXXZXBBB (AA)nM (II), BBXZXXXXB (III), BXZXXZXBBBB (AA)nMLBBAGS (IV), BXZXXZXBBB (VIII) (V), LBBNXZNXXRX (VI), LKNXZXXZXRK (VII) and BBXZXXZXBBB (VIII) (V), LBBNXZNXXRX (VI), LKNXZXXZXRK (VII) and BBXZXXZXBBB (VIII) (V), LBBNXZNXXRX (VI), LKNXZXXZXRK (VII) at least 1 z - V; preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 z - V; preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogues are used to treat in (VIII) at least 2 x = F or Y. The analogue in (VIII) at least 2 x = F or Y. The analogue in (VIII) at least 2 x = F or Y. The analogue in (VIII) 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 11; Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-169090/15
                                                                                                                                                                                                                                                                                                                                                                                           useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                  reduces their toxicity.
                                                                  1 ILRWPWWPWRRK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fraser JR,
                                                                                                                                       12;
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                                                                                                                                                                                                                                                                                                           21 AA;
                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-0034949.
96US-0024754.
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                                                                                                                                                                          100.0%;
                                                                                                                                                     0;
                                                                                                                                                                                 Score 86;
Pred. No.
                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Taylor R,
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                                                                                                                                                                                                                              Length 21;
                                                                                                                                                                   Indels
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RESULT

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Query Match Best Local :

Matches

Conservative

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Mismatches

5.4e-06;

Indels

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100.0%;

1 ILRWPWWPWRRK 12 12; Conserv

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CC AAY24549 to AAY24615 represent indolicidin analogues of formulae CC (1)-(VIII) containing up to 25 amino acids (aa): RXZXXZBB (1), BXZXXZBB (AA)nMILBBAGS (IV), BXZXXZBBB(AA)nM (CC (II)), BBBXZXXZXBK (III)) BXZXXZXBBB(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nM (CC (III), BBXZXXXZXBK (VI), LKAXZXXXRK (VII) and BBXZXXXZBBB (VIII) CC (V), LBBNXZNXXRXK (VI), LKAXZXXXXRK (VII) and BBXZXXXZBBB (VIII) CC (V), LBBNXZNXXRXK (VI), LKAXZXXXXRK (VII) and BBXZXXXXBBB (VIII) CC (V), LBBNXZNXXRXK (VI), LKAXZXXXXRK (VII) and BBXZXXXZBBB (VIII) CC (V), LBBNXZNXXRXK (VI), LBRXXXXXXBBB (VIII) at least 1 2 - V; CC (V), LBBNXZNXXRXK (VI), LBRXXXXXBBB (VIII) at least 1 2 - V; CC (V), LBRXXXXXRX (VI), LBRXXXXXBBB (VIII) at least 1 2 - V; CC (IN (VIII) at least 2 x - F or Y. The analogues are used to treat (CC (IN (VIII)) at least 2 x - F or Y. The analogues some particles, cestodes or CC (IN (VIII)) at least 2 x - F or Y. The analogues may be used similarly; the compounds may compact of the analogues may be used similarly; the compounds may compound from the analogues may be used similarly; the compounds may compound to be prepared from antibiotics of antiarrythmic agents. The analogues are administered by injection, lavage, orally compounds are antigorially at 0.1-50 mg/kg. These analogues have a broader or topically, generally at 0.1-50 mg/kg. These analogues have a broader or topically constrained indolicidin and modification as compounds compounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY24554 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antimicrobial; antibiotic; antiarrythm additive; shampoo; soap; insecticide; food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin analogue #6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indolicidin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-FEB-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1998-169090/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 11; Page 88; 129pp; English.
                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bacterial
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960S-0024754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97WO-US14779
                                                                                               toxicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      infection; photo-oxidised solubiliser;
tic; antiarrythmic; surface disinfectant;
p; insecticide; herbicide; preservative;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Krieger TJ,
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Score 86;
Pred. No.
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                       DB 19;
                     Length 21;
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AAY91796
ID AAY9
XX
AC AAY9
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DE Amir
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                                                                                                                                                                                                                                                                                 AAW66376
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                                                                                                                                                                                                                                       Query Match
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10-MAR-1997;
20-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents a specifically claimed cationic peptide from the present invention. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combnation with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b)
                                                                                                                                                                                                                                                                                                                   acquired resistance, and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant or has acquired resistance to an antibiotic agent. They can be used for kill.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   activity of 
or inherent
            Amino acid
                                       06-JUN-2000
                                                                 AAY91796
                                                                                         AAY91796 standard; Peptide;
                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                         e.g. bacteria,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 15; Page 93; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fraser JR,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indolicidin analogue; resistance; cationic peptide; antibiotic;
bacterial infection; tolerance; antibacterial; microorganism;
                                                                                                                                                                                                                            Local
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12; Conserv
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         sequence of
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                                     (first entry)
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97US-0915314.
97US-0060099.
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Pred. No. 5.4e-06;
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           peptide MBI 11B16CN
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be used for killing
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XX SO

Synthetic.

23-DEC-1999 WO9965506-A2

12-JUN-1998; 14-JUN-1999;

99WO-CA00552.

leukaemia; polyoxyalkylene-modified; APO; breast; lung; ovary; cervix; uterus multidrug resistance

uterus; skin; prostate; liver;

composition; cancer; treatment;

lymphoma; multiple

Amino acid sequence of cationic peptide MBI 11B18CN.

06-JUN-2000

(first entry)

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Best Local Similarity
Matches 12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                               This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour calls including these with a multidam activity against tumour calls including these with a multidam activity against tumour calls including these with the cations are called the cations and the cations are called the cations and the cations are cations.
                                                                                                                                                                                                                                                                                                                                                                                cells, including those with a multidrug resistant phenotype pharmaceutical composition can be used to treat tumours, spe
AAY91798;
                                 AAY91798
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                                                                                                                                                                                                                                                                                                                                            cervix, uterus, skin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 15; 94pp; English.
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                                                                                                                                                                                                                                                                                                                                                              ymphoma, leukaemia, multiple myeloma, or
                                                                       10
                                                                                                                              2000-223549/19
                                 standard;
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                                 Peptide;
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Pred. No.
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thes 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cervix, uterus, skin, prostate, liver and colon
                                                                                                                                                                                                                                                                                                                                                                                                          AAW66363 standard; peptide; 27 AA.
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                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                        Indolicidin analogue; resistance; cationic peptide; antibiotic;
bacterial infection; tolerance; antibacterial; microorganism;
bacteria; fungus; parasite; virus.
                                                                                                                                                                                                                                                                                                                                     Indolicidin analogue MBI 11820
                                                                                                                           10-MAR-1997;
20-AUG-1997;
26-SEP-1997;
                                                                                                                                                                                                                                   WO9840401-A2
                                                                                                                                                                                                                                                                    Bos taurus.
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          New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                               Fraser JR,
                                                          WPI; 1998-520800/44.
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                                                                                 McNicol PJ,
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97US-0040649.
97US-0915314.
97US-0060099.
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                                                                                                        BIOTECH INC
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Pred. No.
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                                 e.g. enhancing
acquired resistance
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Best Local S
Matches 12
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XCCCCCCCCCXXXXPPPXX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1;
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multidrug resistance.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 leukaemia;
           This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                   Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                     (MICR-) MICROLOGIX BIOTECH INC
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                                                                                                                                                                                                                                                                                                         Friedland HD,
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pred. No. 6.9e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          uterus;
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                                                                                                                                                                          AAY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I) BXZXXZXB (II), BXZXXZXBB (AA)nMILBAGS (IV), BXZXXZXBB (VII) and BXXXXXZXBB (VIII).

Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (¼I), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klabsiella pneumoniae, Bordetella pertussis, Staphylococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antimicrobial; antibiotic; antiarrythmic;
additive; shampoo; soap; insecticide; her)
food; technical material.
           useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                   hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilioma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as europe didinformer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
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21-AUG-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-AUG-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indolicidin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MICR-) MICROLOGIX BIOTECH INC
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                                                                                                                                                                                                                                                                                                                                                                                                                              Page 89; 129pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    analogue #19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bacterial infection; photo-oxidised solubiliser;
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96US-0024754.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            herbicide; preservative;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; ling; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                       activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                          cells, including those with a multiumy recommendation can be used to treat tumours, specifically pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, lymphoma, skin, prostate, liver and colon.
                                                                                                                                                                                                                               This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one
                                                                                                                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                                              Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-JUN-1998;
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                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Friedland HD,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic.
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                  96.5%;
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91.7%;
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Score 83; DB 21; I
Pred. No. 7.9e-06;
"'smatches 0;
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Pred. No. 7.9e-06;
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Search completed: June 21, 2001, 08:33:12 Job time: 259 sec

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KW ant:
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Matches 11; Conserv
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21-AUG-1996;
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                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                reduces their toxicity.
                                                    LRWPWWPWRRK 12
       (first entry)
                                                                                                                                                                                                                           12 AA;
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96US-0024754.
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                                                                                                      95.3%; Score 82; DB
100.0%; Pred. No. 1.:
tive 0; Mismatches
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                                                                                                                                 DB 19;
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  protein search, using sw model
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1: /cgn2_6/ptodata/2,
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13.665 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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86
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US-08-915-314-87
US-08-915-314-86
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US-08-915-314-86
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100.0%; Scor y 100.0%; Pred rvative 0; Mi	US/08915314  net R. aaal H.P. imachy J. bert bert OMPOSITIONS OMPOSITIONS US 90 16 Center, 7 16 Center, 7 17 Center, 7 18 Center, 7 19 Center, 7 19 Center, 7 10	ALJ	116 4 US-08- 21 4 US-08- 11 4 US-08- 11 4 US-08- 11 4 US-08- 11 2 4 US-08- 11 3 US-08- 11 3 1 US-08- 11 3 1 US-08- 11 4 US-08- 11 4 US-08- 11 4 US-08- 12 4 US-08- 13 1 US-08-
e 86; DB 4; . No. 1.2e-06; smatches 0;	AND METHODS FO SING ANALOGUES 701 Fifth Avenu 701 Version #1.3 ), Version #1.3	ALIGNMENTS	702-054B-2 -915-314-54 -915-314-90 -915-314-91 -915-314-81 -915-314-82 -915-314-82 -915-314-82 -915-314-84 -915-314-81 -915-314-84 -915-314-84 -915-314-84 -915-314-74 -712-054B-5 -712-275-1 -197-205-5 -915-314-29 -915-314-29
Length 12; Indels 0;	OF INDOLICIDIN e		Sequence
Gaps			e 2, Appli e 54, Appl e 90, Appl e 38, Appl e 38, Appl e 81, Appl e 82, Appl e 83, Appl e 84, Appl e 5, Appl e 5, Appl e 1, Appl e 5, Appl e 5, Appl e 5, Appl e 5, Appl

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NFORMATION FOR SEQ ID NO:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                        ent No.
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                                                                                                                                        ERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: No. 6180604tenburg Ph.D., Carol REGISTRATION NUMBER: 39,317 REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE:
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LE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLIC
                                      CITLE OF INVENTION:
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TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
                                                                                                  PPLICANT:
                                                                      PLICANT:
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6300 Columbia Center, 701 Fifth Avenue
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Taylor, Robert
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                                                                      Erfle, Douglas
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SEED and BERRY LLP
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Michael H.P.
                                         COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
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Pred. No.
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APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNET/AGENT INFORMATION:
NAME: NO. 6180604 temburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
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MEDIUM TYPE: Floppy disk
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1. CURRENT APPLICATION DATA:
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        ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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                                                        APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
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LE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
REFERENCE/DOCKET NUMBER:
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660081.405
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                                                                                                                                                                                                                                                                                   701 Fifth Avenue
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Best Local Similarity 100
Matches 12; Conservative
                                                       Matches
                                                                               Query Match
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NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
TTORNEY/AGENT
MAN: 20-AUG-1997
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LENGTH: 21 amino acids
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NAME: No. 6180604 tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                  TYPE: amino acid
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                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
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                                                                    Local Similarity
                                                                                                                                        TOPOLOGY:
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                           1 ILRWPWWPWRRK 12
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LE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
LE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
ILKWPWWPWRRK 12
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                                                       Conservative
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                                                                 Score 83; 1
Pred. No. 3
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                                                       Mismatches
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                                                                              Length 12;
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Best Local Similarity
Matches 11; Conserv
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                                                                                                                                                                                  -08-913 - Approx. Sequence 77, Approx. No. 6180604
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                            CORRESPONDENCE ADDRESS
                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                            TITLE OF INVENTION: CÓMPOSITIONS AND METHODS FOR TREATING
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                                              NUMBER OF SEQUENCES:
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E: SEED and BERRY LLP 6300 Columbia Center, 701 Fifth Avenue
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West, Michael H.P.
                                                                                             Erfle, Douglas
                                                                                                          Taylor, Robert
                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PatentIn Release #1.0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
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                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                   95.3%; Score 82;
100.0%; Pred. No.
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MEDIUM TYPE: Floppy

98104

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US-08-915-314-77
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Best Local Similarity
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NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tent No.
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TELECOMMUNICATION INFORMATION:
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NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
                                                            ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997 CLASSIFICATION: 424
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Pelantin
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                                                                                                                                                                                                                                                                                                                           CITY: Seattle
STATE: Washington
                                                                                                                                APPLICATION NUMBER:
FILING DATE: 20-AUG
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                          COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                     LICANT: Taylor, Robert
LICANT: Erfle, Douglas
LICANT: OMPOSITIONS AND METHODS FOR TREATING
LE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION:
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                                                                                                                                                                                                                                                                                               98104
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West, Michael H.P.
Krieger, Timothy J.
                (206)
                                                                                                                       US/08/915,314
: 20-AUG-1997
TON: 424
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                               (206) 622-4900
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682-6031

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Pred. No. 5.
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RESULT 10 US-08-915-314-85

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                                                                                                                              TOPOLOGY: US-08-915-314-78
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Best Local Similarity
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                                                                      Query Match
Best Local Similarity
                                                           Matches
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                                                                                                                                                                                         TELEFAX: (206) 682-603:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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                                                                                                                                                                                                                                                                   ELECOMMUNICATION INFORMATION
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STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
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                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                      CELEPHONE:
                            1 ILRWPWWPWRRK 12
ILAWPWWPWRRK 12
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Erfle, Douglas
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                                                            Conservative
                                                                                                                                                 linear
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                                                                                                                                                                                                                                                         (206)
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1 682-78:
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                                                                                                                                                                                                                                                                                       660081.405
                                                                          Score 80;
Pred. No.
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                                                                                        Length 12;
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US-08-915-314-86
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
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NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317

REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                                                                                                       CORRESPONDENCE ADDRESS
                                                                                                                                                                APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
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                                                                                                                        NUMBER OF SEQUENCES:
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OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997
                           COUNTRY:
                                                                        STREET:
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                                                                                        ADDRESSEE:
                                                                                                                                    LE OF INVENTION:
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6180604
                98104
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READABLE FORM
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                                        Washington
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                              USA
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Erfle, Douglas
                                                                                                                                                                                                              Fraser, Janet R.
West, Michael H.P
                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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Taylor, Robert
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
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                                                                                          SEED and BERRY LLP
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                                                                                                                                    COMPOSITIONS AND INFECTIONS USING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                  93.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                Score 80;
Pred. No.
                                                                                                                                    METHODS FOR TREATING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 12;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO:
                INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                 CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604 tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622.4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
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LENGTH: 12 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: CÓMPOSITIONS AND METHODS FOR TREATING INTELLIBRICATION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
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                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
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COMPUTER: II
                                                                                                                                                                                       APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997
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CLASSIFICATION: 424
                                                                    TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION:
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Taylor, Robert
Erfle, Douglas
12 amino acids
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20-AUG-1997
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                                                    682-6031
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Pred. No.
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Fraser, Janet R.

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; STRANDEDNESS: ; TOPOLOGY: 11 US-08-915-314-80
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US-08-915-314-83
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Best Local Similarity 91.7
11; Conservative
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                                        RESULT 14
US-08-915-314-38
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                                                                                                                                                               Query Match
Best Local S
        Sequence 38, Application US/08915314 Patent No. 6180604
                                                                                                                                                                                                                                                                          TELEFAX: (206) 682-6031
(NFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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MEDIUM TYPE: Floppy disk
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                            NAME: NO. 6180604 tenburg Ph.D., Carol REGISTRATION NUMBER: 39,317 REFERENCE/DOCKET NUMBER: 660081.405 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           UMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING UTLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 20
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997
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                                                                                                                                                Local Similarity
hes 11; Conserv
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1 ILRWPWWAWRRK 12
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West, Michael H.P.
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91.7%;
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Pred. No. 1.6e-0
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RESULT
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APPLICATION NUMBER: US/08/915,314
APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604 tenburg ph.D., Carol
NAME: NO. MUMBER: 39,317
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
                                                                                                                                                                                                                                                                                                                     Patent No.
                                                                                                                                                                                                                                                                                                                                 Sequence 69,
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MEDIUM TYPE: Floppy
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SOFTWARE: Patentin Release #1.0, Version #1.30
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                      TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                        APPLICANT:
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les 10; Conserv
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                                                                                                           CITY: Seattle
                                                                                                                           STREET:
                                                                               COUNTRY:
                                                                                                                                            ADDRESSEE:
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Washington
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6300 Columbia Center,
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                             6300 Columbia Center,
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SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION UNMERR: 39,317
REFERENCE/DOCKET NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 39,317
IRELEMBHONE: (206) 622-4900
TELECOMMUNICATION INFORMATION:
TELEMBHONE: (206) 622-6031
INFORMATION FOR SEQ ID NO: 69:
SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
TYPE: Amino acids
STRANDEDNESS:
TOPOLOGY: linear
US-08-915-314-69

Query Match
B9.5%; Score 77; DB 4; Length 12;
Best Local Similarity 83.3%; Pred. No. 2.1e-05;
Matches 10: Conservative 1; Mismatches 1; Indels 0; Gaps
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OILENPWWPWRRK 12
Db 1 ILENPWWPWRRK 12
Search completed: June 21, 2001, 08:33:33
Job time: 175 sec
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Perfect score:
Sequence:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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86
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Gapop 10.0 , Gapext 0.5
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modulator of drug
monofunctional bio
probable MFS trans
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hypothetical prote
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E2 glycoprotein pr
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VGIHHC  VGIHHC  E2 glycoprotein precursor - human coronavirus (stra R), Alternate names: peplomer glycoprotein; S glycopr C; Species: human coronavirus A; Note: host Homo sapiens (man) C; Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 C; Accession: A34766; S05460 R; Raabe, T.; Schelle-Prinz, B.; Siddell, S.G.	Query Match 81.4%; Score 70; DB 1; Best Local Similarity 88.9%; Pred. No. 0.011; Matches 8; Conservative 1; Mismatches  Oy 3 RWPWWPWRR 11  Db 135 KWPWWPWRR 143	A; Molecule type: protein A; Residues: 131-143 < SEL> A; Experimental source: neutrophils A; Note: sequence extracted from NCBI backbone (NCBI) C; Superfamily: cathelin; cystatin homology C; Keywords: amidated carboxyl end F; 1-29/Domain: signal sequence #status predicted < S F; 22-129/Domain: cystatin homology < CYS> F; 30-130/Domain: propeptide #status predicted < PRO> F; 31-143/Product: indolicidin #status experimental F; 143/Modified site: amidated carboxyl end (Arg) (a)	peptide s (cattle) vision 10-Sep-1999 664 67-472,.1992 87, 467-472,.1992 87, 427-472,.1992 87, 427-472,.1992 87, 427-472,.1992 87, 427-472,.1992 88, 427-472,.1992 89, 427-472	ALIGNMENTS	30 44 51.2 1162 2 S07421 31 44 51.2 1162 2 S14939 32 44 51.2 1162 2 S14940 33 43.5 50.6 1529 2 A59189 34 43 50.0 192 2 H85543 36 43 50.0 192 2 D72081 37 43 50.0 236 2 D70606 38 43 50.0 236 2 D70606 39 43 50.0 278 2 T46458 40 43 50.0 278 2 T46458 41 43 50.0 646 2 H82555 42 43 50.0 646 2 H82555 43 50.0 738 2 F96701 44 43 50.0 958 2 A70634 45 43 50.0 1112 2 S70522
rain 229E) protein; spike glycoprotein 1 #text_change 16-Jun-2000	Length 144; 0; Indels 0; Gaps 0;	(NCBIP:83840) ed <sig> <pro> ental <mat> g) (amide in mature form from followi</mat></pro></sig>	<pre>#text_change 10-Sep-1999  .; Zanetti, M. 1 peptide indolicidin. 1 peptide indolicidin. 47755.1; PID:g463   Y.Q.; Smith, W.; Cullor, J.S. eptide amide from neutrophils.</pre>		E2 glycoprotein pr E2 glycoprotein pr E2 glycoprotein pr ATP-binding casset light-harvesting p hypothetical prote conserved hypothet arylesterase (EC 3 probable cobalamin hypothetical prote hypothetical prote probable crobalamin hypothetical prote c-type cytochrome antibiotic transpo hypothetical prote probable mmpLl pro cyclic nucleotide

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C;Keywords: glycoprotein; transmembrane protein
C;Keywords: glycoprotein; transmembrane protein
F;1-15/Domain: signal sequence #status predicted <SIG>
F;16-1173/Product: E2 glycoprotein #status predicted <MAT>
F;1116-1138/Domain: transmembrane #status predicted <TMN>
F;23,62,98,147,171,176,220,243,326,333,440,464,518,538,542,568,581,587,663,671,930,1015,
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A; Residues: 1-299 < ANS>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J. Gen. Virol. 71, 1065-1073, 19
A; Title: Nucleotide sequence of
                                                        R; Johnson, D.; St
submitted to the
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\;Residues: 1159-1173 <RA2>
A; Reference number: A; Accession: T29295
                                                                                                                     hypothetical protein C50f7.8 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Experimental source:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: EMBL:AL096753
                                       A; Description:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ucleic Acids Res. 17, 6387, 1989;Title: Nucleotide sequence of the human coronavirus;Reference number: A34038; MUID:89366667;Accession: S05460
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Molecule type: mRNA
;Residues: 1-1173 <RAA>
;Cross-references: EMBL:X16816; NID:g58926;
;Cross-references: strain 229E
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Species: Homo sapiens (man)

Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 23-Jul-1999;

Accession: T12505
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Best Local
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                                                                                                  Accession: T29295
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nes 6; Conserv
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                     he EMBL Data Library, November 1995
The sequence of C. elegans cosmid C50F7
mber: Z20601
                                                                                Stellyes,
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Pred. No. 12;
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Pred. No.
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A; Molecule type: DNA
A; Residues: 1-111 <JOH>
A; Cross-references: EMBL
C; GenetLcs:
A; Gene: CESP: C50F7.8
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C;Date: 14-U1-1994 #sequence_revision 1B-Oct-1996 #text_change 16-Jun-2000
C;Accession: JT0751; JT0079; JS0390; S03558; PS0003; A29604; S52100
R;Takatt, Y; Sagara, Y; Kono, A.; Sekimizu, K.; Horiuchi, T.
Biol. Pharm. Bull. 16, 1200-1206, 1993
A;Title: Gene structure of bovine adrenodoxin reductase.
A;Reference number: JT0751; MUID:94177140
A;Accession: JT0751
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Biochem. Biophys. Res. Commun. 145, A; Title: Molecular cloning and seque A; Reference number: A29604; MUID:877
                                                                    A; Residues: 33-41/8',43-62;260-283,'TM';496-498 <HAM>
A; Note: a cyanogen bromide peptide binds to adrenoferredoxin
R; Nonaka, Y.; Murakami, H.; Yabusaki, Y.; Kuramitsu, S.; Kag
                                                                                                                                                                                   A; Reference number: PS0003; A; Accession: PS0003
                                                                                                                                                                                                            A;Title: Adrenoferredoxin-binding peptide of NADPH-adrenoferredoxin reductase. A;Reference number: PS0003; MUID:88184054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R.Sagara, Y.; Takata, Y.; Miyata, T.; Hara, J. Biochem. 102, 1333-1336, 1987
A;Title: Cloning and sequence analysis of aca; Reference number: JT0079; MUID:88198050
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A; Residues: 1-498
                                                                                                                               A; Molecule type: protein A; Residues: 33-41, 'S', 43
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Matches 6
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                                                                                                                                                                                                                                                               Hamamoto, I.; Kurokohchi, K.; Tanaka, S.; Ichikawa, lochim. Biophys. Acta 953, 207-213, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hanukoglu, I.; Gutfinger, T.
1r. J. Biochem. 180, 479–484, 1989
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Residues: 155-204,211-498 <HAN>
Residues: 155-204,211-498 <HAN>
Cross-references: EMBL:X13736; NID:g65; PIDN:CAA32002.1; PID:g833776
Note: 405-Ser was also found
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title: cDNA sequence of adrenodoxin reductase. Identification of NADP-binding sites Reference number: S03558; MUID:89170752
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  and sequence analysis
MUID:87270696
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Pred. No.
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                                                      1, Y.; Kuramitsu, S.; Kagamiyama, 1239-1247, 1987
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                                   of full-length cDNA
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\ensuremath{\text{F;40-70/Region:}} beta-alpha-beta FAD nucleotide-binding fold F;180-190/Region: NADP binding *status predicted F;281/Binding site: substrate (Lys) *status experimental
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Biochim. Biophys. Acta 1246, 39-46, 1995
A;Title: Structural and functional characterization
A;Reference number: S52100; MUID:95110846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: T36208
R;Oliver, K.; Harris, D.; Bentley, S.D.; Parkhill, submitted to the EMBL Data Library, May 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hypothetical protein SCE36.09 - Streptomyces coelicolor
C;Species: Streptomyces coelicolor
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 03-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                F;1-32/Domain: transit peptide (mitochondrion) #status predicted <SIG>F;33-498/Product: ferredoxin--NADP+ reductase, long form #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Function:
                         R; Park, H.J.; Kreutzer, R.; Re
Eur. J. Biochem. 205, 875-879,
                                                                    C;Species: Thermus aquaticus
C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change
C;Accession: S23449; S24556
                                                                                                                                           NADH oxidase (H2O2-forming) (EC 1.6.-.-) -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Experimental source: strain A3(2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-114 <OLI>
A; Cross-references: EMBL: ALO49763; PIDN: CAB42078.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Reference number: Z21601
A; Accession: T36208
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Introns: 27/1; 59/3; 91/3; 132/3; 170/3; 204/3; 246/3; 275/1; 341/3; 399/1; 456/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Molecule type: protein
A;Residues: 'X',34-41,'X',43-48,'X',50-51;304-306,'X',308-309,'X',311-326 <WAR>
C;Comment: Ferredoxin--NADP+ reductase is localized in the matrix of adrenal cortex mitcle ferredoxin--NADP+ reductase, adrenodoxin and two forms of cytochrome P-450.
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A;Cross-references: GB:M17029; NID:g162628; PIDN:AAA30362.1; PID:g162629
A;Experimental source: adrenal cortex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;Status: preliminary
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83.3%;
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                           Reiser, C.O.A.; Sprinzl,
79, 1992
     nucleotide
                                                                                                                                                                                                                                                                                                                                                                  Score 48.5; D
Pred. No. 5.1;
0; Mismatches
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     encoding
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     a H(2)O(2)-formi
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C; Accession: B83161
R; Stover, C.K.; Pham, X.Q.;
adman, S.; Yuan, Y.; Brody,
.; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998
A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complete A;Reference number: A70500; MUID:98295987
A;Accession: G70715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Mycobacterium tuberculosis
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 20-Jun-2000
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 20-Jun-2000
C;Accession: G70715
R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.;
Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; H.;
Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Skelton, S.; Squares, S.
                                                                                                                                                                                                                               probable short-chain dehydrogenase PA3883 [imported] - Pseudomonas aeruginosa
C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
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F; 1-248/Product:
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A;Accession: S24556
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A;Experimental source: strain H37Rv
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A; Residues: 1-32 < PAR1>
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A; Residues: 1-248 < PAR>
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A; Accession: S23449
A; Molecule type: DNA
A; Residues: 1-276 <STO>
                                                          A; Reference number: A82950; A; Accession: B83161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Superfamily: ribitol dehydrogenase; short-chain F;8-190/Domain: short-chain alcohol dehydrogenase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Residues: 1-253 <COL>
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                                          A; Status: preliminary
                                                                                                       A; Title: Complete genome
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5; Conserv
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                                                                                  sequence of Pseudomonas aeruginosa PAO1,
;0; MUID:20437337
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100.0%;
                                                                                                                                                                          Erwin, A.L.; Mizoguchi, S.D.
L.L.; Coulter, S.N.; Folger,
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Pred. No.
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homology <SADH>
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lger, K.R.; Kas,
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A;Cross-references: GB:AE004805; GB:AE004091; NID:g9950055; PIDN:AAG07270.1; GSPDB:GN001
A;Experimental source: strain PAO1
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C;Superfamily: ribitol dehydrogenase; short-chain alcohol dehydrogenase homology
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A;Status: Barrell A70741

A;Status: Sqares R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.
A;Reference number: A70500; MUID:98295987

A;Recession: B70741
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A;Experimental source: strain H37Rv
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                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein T22P22.90 - Arabidopsis thaliana
5; Species: Arabidopsis thaliana (mouse-ear cress)
5; Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 20-Apr-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Status: preliminary; nucleic acid sequence not shown; translation
                                                                                                                                                                                                                                                       h; Molecule type: DNA
h; Residues: 1-1411 <
                                                                                                                                                                                                                                                                                                                                                                  ubmitted to the Protein Sequence Database,
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                        ;Residues: Î-1411 <BEV>
;Cross-references: EMBL:AL163814
;Experimental source: cultivar C
                                                                                                                                                                                                                                                                                                                                                                                           Bevan, M.; Hilbert, H.; Braun, M.; Holzer,
                                                                                                                                                                                                                                                                                                                         Reference number: Z24490
Accession: T48529
                                                                                                                Map position: 5; Introns: 281/2; Note: T22P22.90
                                                                                                                                                                                                                                                                                                     Status: preliminary
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                      Query Match
Best Local
Matches
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7; Conserv
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    Conservative
                                                                                                                                         320/1; 389/3; 429/3; 473/3; 515/3; 534/2; 567/3; 602/1; 669/1;
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Pred. No.
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pred. No.
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                   Mismatches
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87;
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A;Map position: 6
A;Introns: 26/1; 119/
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A; Accession: T51071
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Best Local
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Best Local
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                        467 VLEWEETLNKRRAMVGSAWWPWPRR 491
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7; Conserv
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7; Conserv
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                                                                              --- PWWPWRRK 12
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K;SCHUITE, U.; Algn, V.; Hoheisel, J.; Brandt, P.; Fartmann, submitted to the Protein Sequence Database, July 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Residues: 1-728 <SCH>
A;Cross references: EMBL:AL390092; GSPDB:GN00116; NCSP:B2A19.50
A;Experimental source: BAC clone B2A19; strain OR74A
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            anthranilate synthase (EC 4.1.3.27) component I [validated] N;Alternate names: anthranilate synthase alpha chain C;Species: Pseudomonas syringae pv. savastanoi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Date: 21-Jul-2000 #sequence_revision 21-Jul-2000 #text_change
                                                                     A;Description: EC 4.1.3.27 [validated; MUID:91100331] A;Note: expression of trpE seems to be independent of C;Superfamily: anthranilate synthase component I C;Keywords: carbon-carbon lyase; oxo-acid-lyase; trypt C;Keywords:
                                                                                                                                                                                                   A; Description: EC 4.1.3.27 [validated; MUID:90130325]
                                                                                                                                                                                                                                                                                                                                                                               . Bacteriol. 173, 463-471, 1991
Title: Molecular characterization and expression
Reference number: A39128; MOID:91100331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Date: 27-Nov-1991 #sequence_revision
                                                                                                                                                                                                                                     Complex: heterotetramer; two component I chains, two
                                                                                                                                                                 Pathway: tryptophan biosynthesis
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                52.9%;
28.0%;
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Pred. No.
Score 45.5; I
pred. No. 51;
2; Mismatches
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62;
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                                                                                              tryptophan biosynthesis
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                                             <u>ب</u>
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                                           Length 505;
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                13;
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A;Experimental source: strain 9a5c

R;Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; Simpson, A.J.G.; Reinach, F.C.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, as-Neto, E.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S. submitted to GenBank, June 2000

A;Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Froh J.D.; Junqueira, W.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laig chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, Chado, M.A.; Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y., F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D. F.G.; Nunes, L.R.; Oliveira, M.A.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasa A;Authors: da Silva, A.C.R.; da Silva, A.M.; Silva, Jr., W.A.; da Silva, A.M.; Silva, Jr., W.A.; da Silvei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Map position:
C; Superfact:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R:Connor, R.; Churcher, C.M.
submitted to the EMBL Data Library, May 1995
A;Reference number: $55479
A;Accession: $55483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        monofunctional biosynthetic peptidoglycan transglycosylase XF1715 [imported] - Xylella C;Species: Xylella fastidiosa
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C;Date: 01-Aug-1995 #sequence_revision 01-Sep-1995 #text_change 10-Dec-1999
C;Accession: S55483; T38969
                                                                       A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: The genome sequence of the plant pathogen Xylella fastidiosa
A;Reference number: A82515; MUID:20365717
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A;Experimental source: strain 972h-; cosmid c5H10
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A;Contents: annotation
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cross-references: GB:AE003995; GB:AE003849; NID:g9106775; PIDN:AAF84524.1; GSPDB:GN00
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Accession: T38969
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Residues: 1-196 <CON>
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her, C.M.; Barrell, B.G.; Rajandream, M.A.; Walsh, S.V.
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Query Match
52.3%; Score 45; DB 2; Length 273;
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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## ALIGNMENTS

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RESULT
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Raabe T., Schelle-Prinz B., Siddell S.G.;
"Nucleotide sequence of the gene encoding the human coronavirus HCV 229E.";
J. Gen. Virol. 71:1065-1073(1990).
-1- FUNCTION: THE PEPLOMER PROTEIN MEDIATES TH-1- FUNCTION: THE PEPLOMER PROTEIN MEDIATES TH AND IN SYNCYTIUM FORMATION.
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01-APR-1990 (Rel. 14; Last
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Viruses; ssRNA positive-strand
Coronaviridae; Coronavirus.
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15-JUL-1998 (Rel. 36, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
NADPH:ADRENODOXIN OXIDOREDUCTASE, MITOCHONDRIAL PRECURSOR
(EC 1.18.1.2) (ADRENODOXIN REDUCTASE) (AR) (FERREDOXIN-NADP(+)
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Boyinae; Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING MEDLINE-94177140; PubMed-8130767; MEDLINE-94177140; PubMed-8130767; Rakata Y., Sagara Y., Kono A., Sekimizu K., i Takata Y., Sagara Y., Kono A., Sekimizu K., i Takata Y., Sono A., Sekimizu K., i Takata Y., Sono A., Sekimizu K., i Takata Y., Sagara Y., Kono A., Sekimizu K., i Sagara Y., Kono A., Sekimizu K., i Sagara Y., Sagara 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REDUCTASE)
                                                                                                                                                                                                                                                                                                           J. Biochem.
                                                                                                                                                                                                                                                                                                                                   Sagara Y., Takata Y., Miyata T., F
"Cloning and sequence analysis of
bovine adrenal cortex.";
J. Blochem. 102:1333-1336(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., AND PARTIAL SEQUENCE MEDLINE-88198050; PubMed-3448086;
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SEQUENCE FROM N.A.
TISSUB-Adrenal cortex;
MEDLINE-89170752; PubMed-2924777;
Hanukoglu I., Gutfinger T.;
*cDNA sequence of adrenodoxin red
                                                                                                                                                                   Yamano T., Okamoto *Molecular cloning of adrenodoxin oxio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9913;
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                                                                                                                                          ning and sequence analysis of full-length cDNA for mRNA oxidoreductase from bovine adrenal cortex."; ys. Res. Commun. 145:1239-1247(1987).
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EMBL; D00211; BAA00150 1; -.
EMBL; X13736; CAA32002.1; -.
PIR; A29604; A29604
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"The Structure of adrenodoxin reductase of mitochondrial p450 systelectron transfer for steroid biosynthesis.";
J. Mol. Biol. 289;981-990(1999).
-!- FUNCTION: SERVES AS THE FIRST ELECTRON TRANSFER PROTEIN IN ALL MITOCHONDRIAL p450 SYSTEMS. INCLUDING CHOLESTEROL SIDE CHAIN CLEAVAGE IN ALL STEROIDOGENIC TISSUES, STEROID 11-BETA HYDROXYLATION IN THE ADRENAL CORTEX, 25-OH-VITAMIN D3-24
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Mitochondrion;
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PDB; 1E1L; 02-JUN-00.
InterPro; IPR000759;
                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Eur. J.
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MEDLINE-99299392; Pub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Isolation of a cDNA for adrenodoxin reductase (ferredoxin-NADP+reductase). Implications for mitochondrial cytochrome P-450 syst
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X-RAY CRYSTALLOGRAPHY (1.7 ANGSTROMS) OF 33-492
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ALTERNATIVE PRODUCTS: 2 ISOFORMS; A SHORT FORM (SHOWN HERE) AND A LONG FORM; ARE PRODUCED BY ALTERNATIVE SPLICING. THE LONG FORM REPRESENTS 10-20% OF ALL ADRENODOXIN REDUCTASE MRNA. AND SEEMS TO
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PATHWAY: CHOLESTEROL
SUBUNIT: MONOMER.
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CATALYTIC ACTIVITY:
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180:479-484(1989).
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                                                                                                                                                                                                     Oxidoreductase: Flavoprotein; NADP; FAD; sit peptide; Alternative splicing; 3D-structure.
           57.0%;
83.3%;
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Score 49; DB Pred. No. 6; 0; Mismatches
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RAGIRLAVTR -> ARRSAWQSPE (IN REF TRAVPTGDVEDL -> HPGSAHWGCGGP (IN 1 E68F6F5D18F53131 CRC64;
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FGVAPDHPEVKNVI -> VWLALTTPRSRMLL
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, Last sequence update) , Last annotation update A PROTEIN RV1355C.

update)

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RESULT 5 YD55\_MYCTU

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RA Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., RA Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Davlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S., RA Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., RA Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., RA Rutter S., Seeger K., Skelton S., Squares S., Squres R., Sulston J.E., RA Taylor K., Whitehead S., Barrell B.G.;
RT "Deciphering the biology of Mycobacterium tuberculosis from the Complete genome sequence.";
C. 1-SIMILARITY: BELONGS TO ""-"
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                                                                                         PROSITE; PS00061; ADH_SHORT; 1.

Hypothetical protein; Oxidoreductase.

ACT_SITE 159 159 BY SIMII

SEQUENCE 253 AA; 27138 MW; BAD937
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90-MAY-2000 (Rel. 39, Last annotation update)
PUTATIVE OXIDOREDUCTASE RV0945 (EC 1.---).
RV0945 OR MTCY10D7.29C.
MYCCObacterium
                                                                                                                                            Truberculist; RV0945; -.
InterPro; IPR002198; -.
Pfam; PF00106; adh_short; 1.
                                                                                                                                                                                    EMBL; 279700; CAB02005.1;
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01-NOV-1997 (Rel.
30-MAY-2000 (Rel.
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NCBI_TaxID=1773;
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BAD937208842Da12 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                               PSESS
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SEQUENCE 715 AA;
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Pfam; PF00899; ThiF_family;
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                                                                                                                                                                                                                                  Pseudomonas syringae (pv. Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                            01-MAY-1991
30-MAY-2000
                                                                                                                            da Costa E., Silva O., Kosuge T.;
"Molecular characterization and expression
anthranilate synthase gene of Pseudomonas
                                                                                                                                                                 SEQUENCE FROM N.A. MEDIINE-91100331; PubMed-1987141;
                                                                                                              savastanoi.";
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              - PATHWAY: FIRST STEP IN-
SUBUNIT: TETRAMER OF I
SIMILARITY)
- MISCELLANEOUS: COMPONE
                                                                 Bacteriol 173:463-471(1991).
- CATALYTIC ACTIVITY: CHORISMATE + L-GLUTAMINE - PYRUVATE + L-GLUTAMATE.
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SCELLANEOUS: COMPONENT I CATALYZES ING AMMONIA RATHER THAN GLUTAMINE,
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COMPONENT I (EC 4.1.3.27):
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pfam; PF00425; chorismate_bind;
PRINTS; PR00095; ANTSNTHASEI.
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                                                                                                                                                                                                                                                            Schizosaccharomyces pombe (Fission yeast).
Eukaryota; Fungi; Ascomycota; Schizosaccharomycetes;
Schizosaccharomycetales; Schizosaccharomycetaceae;
                                                                                                     EMBL; Z49811; CAA89955.1;
Hypothetical protein.
SEQUENCE 196 AA; 22104
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Schizosaccharomyces.
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SIMILARITY: BELONGS TO THE ANTHRANILATE SYNTHASE COMPONENT
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IYOWPGWWMGTPWKLK 78
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7; Conserv
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505 AA; 56084 MW;
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Pred. No.
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Q63085;
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15-JUL-1998 (Rel. 36, Last annotation update)
15-JUL-1998 (Rel. 36, Last annotation update)
CGMP-INHIBITED 3'.5'.CYCLIC PHOSPHODIESTERASE E
GMP INHIBITED PHOSPHODIESTERASE B) (CGI-PDE B)
01-MAY-1991 (Rel. 18, Created)
01-MAY-1991 (Rel. 18, Last sequence update)
30-MAY-2090 (Rel. 39, Last annotation update)
30-MAY-2000 (Rel. 39, Last annotation update)
GALACTOSIDE 3(4)-L-FUCOSYLTRANSFERASE (EC 2.4.1.65) (BLOOD GALACTOSYLTRANSFERASE) (LEWIS FT) (FUCOSYLTRANSFERASE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JIRAIN-SPRAGUE-DAWLEY; TISSUE-Adipose tissue; MEDLINE-93366761; PubMed-8395509; Taira M., Hockman S.C., Calvo J.C., Taira M., Manganiello V.
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                                                              FUT3_HUMAN STANDARD;
P21217; Q99448; Q99449;
01-MAY-1991 (Rel. 18, Cr.
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SUBGELLULAR LOCATION: MEMBRANE-BOUND (POTENTIAL).
TISSUE SPECIFICITY: ABUNDANT IN ADIPOSE TISSUES.
SIMILARITY: BELONGS TO THE CYCLIC NUCLEOTIDE PHOSPHODIESTERASE
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POLY-ASP.
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SEQUENCE FROM N.A.

MEDLINE-91032981; PubMed-1977660;

Kukowska-Latallo J.F., Larsen R.D., Nair R.P.,

Kukowska-Latallo J.F., Larsen R.D., Nair R.P.,

"A cloned human cDNA determines expression of
embryonic antigen and the Lewis blood group
alpha(1,3/1,4)fucosyltransferase.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Alpha (1,3/1,4)fucosyltransferase (FucT-III) gene is a single amino acid substitution in Lewis histo-blood individuals.";
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2UT3 OR LE.
Homo sapiens (Human).
Homo sapiens (Human).
**Toria; Metazoa; Chordata; (**Toria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VARIANTS LE(-) ARG-20 AND SER-170.
MEDLINE-94033579; PubMed-8219240;
Koda Y., Kimura H., Mekada E.;
"Analysis of Lewis fucosyltransferase genes from the human mucosa of Lewis-positive and -negative individuals.";
Blood 82:2915-2919(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VARIANTS LE(-) ARG-20; SER-170 A
MEDLINE-94059082; PubMed-8240337
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                                                                                                                                                       VARIANTS LE(-) ARG-ZU; ARG-ZU;
                                                                                                                                                                                                                                                                                                                                                                           VARIANT LE(-) LYS-356.

MEDLINE-95050753; PubMed-7961897;

MIShihara S., Narimatsu H., Iwasa

Ando T., SenO T., Narimatsu I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VARIANTS LE(-) ARG-20 AND LYS-356.

MEDLINE=94342259; PubMed=8063716;

Mollicone R., Reguigne I., Kelly R.J., Fletcher A., Watt J.,

Chatfield S., Aziz A., Cameron H.S., Weston B.W., Lowe J.B., Oriol

"Molecular basis for Lewis alpha(1,3/1,4)-fucosyltransferase gene
deficiency (FUT3) found in Lewis-negative Indonesian pedigrees.";

J. Biol. Chem. 269:20987-20994(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=94059067; PubMed=8240322.
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                    VARIANTS LE(-) ARG-68 AND MET-105.
MEDLINE-97413801; PubMed-9268337;
                                                                                                                                                                                                                                                                                                                       system.";
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                                                                                                                                  "DNA sequencing and screening 'FUT3' gene enables molecular group system.":
                                                                                                                                                                                                                                                                                                                                                 "Molecular genetic analysis of the human
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                                                                                                   70:97-103(1996)
  Mollicone R.,
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  Costache
                                                                                                                                                                                                                                                                                                                                                                                                        Iwasaki H.,
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Catarrhini;
                                                                                                                                                  genotyping of
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  Boerjeson
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                                                                                                                                                                                                                                                                                                                                                      Lewis
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  C.,
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                                                                                                                                                                       Larson G.;
In the human Lewis
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stage-specific
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EMBL; X53578; CAAA37641.1; -. EMBL; U27328; AAC50187.1; -. EMBL; U27326; AAC50185.1; -. EMBL; U27327; AAC50186.1; -. EMBL; D89324; BBAA13942.1; -. TARY TRANSPORT TO THE TRANSPO
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EMBL; D89325; BAA139
PIR; A36669; A36669
MIM; 111100; -
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Transferase; Glycosyltransferase; Glycoprotein;
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du Toit E.D., Kimura H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VARIANTS LE(+) K-102; A-124, AND VARIANTS LE(-) N-162; R-223; MEDLINE-98366989; PubMed-9703429;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Significance of individual point mutations, T202C and C314T, in the human Lewis 'FUT3' gene for expression of Lewis antigens by the human alpha'1,3/1,4' fucosyltransferase, Fuc-TIII.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'Xhosa' and Caucasian nonstructions of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VARIANTS LE(+)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTESTINE, LUNG AND KIDNEY AND TO A LESSER EXTENT IN SALTVAR GLAND, BLADDER, UTERUS AND LIVER.
MISCELLANDOUS: ALSO ACTS ON THE CORRESPONDING 1,4-GALACTOSYL DERIVATIVE, FORMING 1,3-L-FUCOSYL LINKS.
SIMILARITY: STRUCTURAL SIMILARITY WITH THE OTHER MAMMALIAN GIYCOSYLENGERS ANGED ACTS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. MEMBRANE-BOUND FORM IN TRANS CISTERNAE OF GOLGI.
TISSUE SPECIFICITY: HIGHLY EXPRESSED IN STOMACH, COLON, SMALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATALYTIC ACTIVITY: GDP-L-FUCOSE + 1,3-BETA-D-GALACTOSYL-W-ACETYL-D-GLUCOSAMINYL-R - GDP + 1,3-BETA-D-GALACTOSYL-(ALPHA-1,4-L-FUCOSYL)-N-ACETYL-D-GLUCOSAMINYL-R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION: MAY CATALYZE ALPHA-1,3 AND ALPHA-1,4 GLYCOSIDIC LINKAGES INVOLVED IN THE EXPRESSION OF VIM-2, LEWIS A, LEWIS B, SIALYL LEWIS X AND LEWIS X/SSEA-1 ANTIGENS. MAY BE INVOLVED IN BLOOD GROUP LEWIS DETERMINATION; LEWIS-POSITIVE (LE(+)) INDIVIDUALS HAVE AN ACTIVE ENZYME WHILE LEWIS-NEGATIVE (LE(+)) INDIVIDUALS HAVE AN INACTIVE ENZYME.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polymorphism; Blood group antigen.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE P
                                                                                                                      /FTId=VAR_003427.
S -> A (IN LE(+)).
/FTId=VAR_007961.
D -> N (IN LE(-)).
                    /FTId=VAR_007962
G -> S (IN LE(-);
/FTId=VAR_003428
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N-LINKED (GLCNAC. .
L -> R (IN LE(-)).
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T -> M (IN LE(-)).
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W -> R (IN LE(-)).
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                    N LE(-);
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                                                       COMPLETELY INACTIVE)
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Pfam; PF00852;
                                                              EMBL; Y14033; CAA74360.1; -. InterPro; IPR001503; -.
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30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
30-MAY-2000 (Rel. 39, Last annotation update)
GALACTOSIDE 3(4)-L-FUCOSYLTRANSFERASE (EC 2.4.1.65) (BLOOD GROUP LEWIS
ALIPHA-4-FUCOSYLTRANSFERASE) (LEWIS FT) (FUCOSYLTRANSFERASE 3) (FUCT-
                                                                                                                                                                                                                                                                                                                                                                                              Costache M., Apoil P.-A., Cailleau A., Elmgren A., Larson G.,
Henry S., Blancher A., Iordachescu D., Oriol R., Mollicone R.;
"Evolution of fucosyltransferase genes in vertebrates.";
J. Biol. Chem. 272:29721-29728(1997).

-I- FUNCTION: MAY CATALYZE ALPHA-1,3 AND ALPHA-1,4 GLYCOSIDIC LINKAGES
INVOLVED IN THE EXPRESSION OF SIALYL LEWIS X AND LEWIS X/SSEA-1
ANTIGENS. IT MAY BE INVOLVED IN BLOOD GROUP LEWIS DETERMINATION
(BY SIMILARITY).

-I- CATALYTIC ACTIVITY: GDP-L-FUCOSE + 1,3-BETA-D-GALACTOSYL-
N-ACETYL-D-GLUCOSAMINYL-R - GDP + 1,3-BETA-D-GALACTOSYL-
N-THER-1-D-GLUCOSAMINYL-R - GDP + 1,3-BETA-D-GALACTOSYL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pan troglodytes (Chimpanzee).
Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE-98037800;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         III) (ALPHA-3/4-FUCOSYLTRANSFERASE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT
                                                                                                                                                                                                                                         162 AND VAL-304, ALLELE B HAS GLY-162 AND MET-304. MISCELLANEOUS: ALSO ACTS ON THE CORRESPONDING 1,4-DERIVATIVE, FORMING 1,3-L-FUCOSYL LINKS.
SIMILARITY: STRUCTURAL SIMILARITY WITH THE OTHER MEGLYCOSYLTRANSFERASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5 PWWPWRR
                                                                                                                                                                                                                                                                                                                   PATHWAY: GLYCOSYLATION.
SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. MEMBRANE-BOUND FORM IN TRANS CISTERNAE OF GOLGI (BY SIMILARITY).
POLYMORPHISM: THERE ARE TWO ALLELES (A AND B). ALLELE A HAS ARC
                                                                                                                                                                                                                                                                                                                                                                                  (ALPHA-1,4-L-FUCOSYL)-N-ACETYL-D-GLUCOSAMINYL-R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PQWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 85. 6; Conservative
                                                                                                            email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
              2; Fucosyl_transf; 1.
Glycosyltransferase; Glycoprotein; Transmembrane;
r; Golgi stack; Polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       336
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed-9368041;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          356
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85.7%;
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V -> M (IN LE(-)).
/FTId=VAR_007964.
D -> A (IN LE(-)).
/FTId=VAR_003429.
I -> K (IN LE(-); L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 44; DB Pred. No. 20; 0; Mismatches
CYTOPLASMIC (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /FTId-VAR_003430.
BF4398044F19C284
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                                                                                                                                                                                                                                                       THE OTHER MAMMALIAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRC64;
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                                                                                                                                                                                                                                                                                                                  ALLELE A HAS
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ຈີ R.;
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Query Match 51.2%;
Best Local Similarity 75.0%;
Matches 6; Conservative
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Best Local
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CARBOHYD
VARIANT
                                                            TRANSMEM
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VARIANT
SEQUENCE
                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation updat
PUTATIVE MEMBRANE PROTEIN MMPL6.
MMPL6 OR RY1557 OR MTCY48.08C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lucuteria; Firmicutes; Actinobacteria; Actinobacteridae; Actinomycetales; Corynebacterineae; Mycobacteriaceae; MCBI_TaxID=1773;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MML6_MYCTU
Q10773;
                                                                                                                                      Hypothetical TRANSMEM
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                                                                                                                                                                          EMBL; 274020; CAA98334.1; -.
                                                                                                                                                                                                  or send
                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-98295987; PubMed-9634230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mycobacterium tuberculosis
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                                                                                                                                                                                                                                                                                               -1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                    an
                                                                                                                                                                                                               requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35
165
196
162
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372
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190 217
190 217
214 23
242 26
293 31
                                                                                                                                                                                                  email to license@isb-sib.ch).
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                                                                                                                                                Transmembrane
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Score 44; DB Pred. No. 22; 0; Mismatches
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Pred. No.
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POTENTIAL.
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N-LINKED (GLCNAC. . .) (POTENT
N-LINKED (GLCNAC. . .) (POTENT
R -> G (IN ALLELE B).
V -> M (IN ALLELE B).
                                                                          POTENTIAL
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                       Length 397;
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RESULT
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  RESULT 13
MML4_MYCTU
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Best Local
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                                                                                                                                                                                                                                                                                                                       Hypothetical
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                                                                                         30-MAY-2000 (Rel. 39; Created)
30-MAY-2000 (Rel. 39, Last sequence up
30-MAY-2000 (Rel. 39, Last annotation
PUTATIVE MEMBRANE PROTEIN MMPL4.
MMPL4 OR RV0450C OR MTV037.14C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-JUL-1998
15-JUL-1998
15-JUL-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                    SEQUENCE FROM N.A. STRAIN-H37RV;
                                                                      Mycobacterium tuberculosis.
Bacteria; Firmicutes; Actin
                                                                                                                                             MML4_MYCTU
053735;
                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brown D., Churcher C.M., Bar
Submitted (AUG-1997) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YDW6_
MEDLINE=98295987;
Cole S.T., Brosch
                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                    EMBL; 298559;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Schizosaccharomycetales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Fungi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Schizosaccharomyces
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             013912;
                                                  NCBI_TaxID=1773;
                                                             Actinomycetales;
                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=4896;
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6; Conserv
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AA;
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L 60.1
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                                                                                                                                                         STANDARD;
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                                                             Corynebacterineae;
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 PubMed=9634230;
R., Parkhill J.,
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102
135
163
221
366
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Last annotation update)
PROTEIN C23C11.06C IN CHROMOSOME
                                                                                                                                                                                                                                                                                                                                                      Transmembrane.
5 POTENTIAL.
2 POTENTIAL.
                                                                        Actinobacteria;
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the EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                     MW.
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POTENTIAL.
POTENTIAL.
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  Garnier
                                                             Mycobacteriaceae; Mycobacterium
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                                                                        Actinobacteridae
                                                                                                             update)
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  Churcher
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Best Local
MEDLINE-98295987; pubMed-9634230;
Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harri-
Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekala F.,
Badcock K., Basham D., Brown D., Chillingworth T., Connor R.,
Bavies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroy,
Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L.,
Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J.,
Rutter S., Seeger K., Skelton S., Squares S., Sqares R., Sulston
Taylor K., Whitehead S., Barrell B.G.;
*Deciphering the biology of Mycobacterium tuberculosis from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q11171;
01-OCT-1996
01-OCT-1996
30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
PUTATIVE MEMBRANE PROTEIN MMPL2.
MMPL2 OR RY0507 OR MTCY20G9.34.
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                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                          Actinomycetales;
NCBI_TaxID=1773;
                                                                                                                                                                                                                                                                                                                                                       Bacteria; Firmicutes; Actinobacteria;
                                                                                                                                                                                                                                                                                                                                                                                 Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MML2_MYCTU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entitles requires a license agreement (See http://www.isb-or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the En
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Fertwell T., Gentles S., Hamlin N., Holroyd Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Sqares R., Sulston J., Rogers G., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AL021932; CAA17407.1;
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mes 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: BELONGS TO THE MMPL FAMILY.
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Pred. No.
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; 6301014031480484 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
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                                                                                                                                                                                                                                                                                                                             Mycobacteriaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      896
                                                                                                                                                                                                                                                                                                                                                       Actinobacteridae;
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                                                                                                                      Holroyd
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                                                                                                                                                                                        Harris
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                                                    ਹ.E.,
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Best Local :
        Wright E. "Seven ne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOUSE
SX13_MOUSE
Q04891;
01-JUN-1994
30-MAY-2000
01-CCT-2000
                                                                                                                                                           Kido
                                        SEQUENCE OF 405-460
MEDLINE=93181275; Pu
                                                                                                                  Gene
                                                                                                                                                                          TISSUE-Embryo;
MEDLINE-98201614; PubMed-9524265;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID-10090;
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SEQUENCE
                                                                                                                                                                                                                                                                                                                               Roose J., Korver W.,
Lamers W., Clevers H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                                                                                                                                                     SEQUENCE FROM N.A., AND
                                                                                                                                                                                                                                                             embryonic development.";
Nucleic Acids Res. 26:469-476(1998).
                                                                                                                                                                                                                                                                                                                                                                         TISSUE-Embryo;
MEDLINE-98083175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOX13 OR SOX-13
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                                                                                                                                                                                                                                                                                                             High expression of the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch)
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                                                                                                              ing and characterization 208:201-206(1998).
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                                                                                                                                                      Hiraoka Y.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Rel. 29, Created)
(Rel. 39, Last sequence up
(Rel. 40, Last annotation
                        1275; PubMed=8441686;
Snopek B., Koopman P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                         PubMed=9421502;
                                                                     FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Rodentia;
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265
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                                                                                                                                                        Ogawa M.,
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75.0%;
Koopman P.;
the Sox gene
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                                                                                                                                  , Sakai Y., of mouse m
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL
                                                                                                                                                                                                                                                                                                                                            Wilson A., Wagenaar G., Markman M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
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  family expressed
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                                                                                                                                ., Yoshimura
mSox13 cDNA.
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  during
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Search completed: June 21, 2001, 08:37:06 Job time: 233 sec
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Best Local Similarity
Matches 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               development.";

Nucleic Acids Res. 21:744-744(1993).

-!- FUNCTION: BINDS TO THE SEQUENCE 5'-AACAAT-3'.

-!- SUBCELLULAR LOCATION: NUCLEAR (POTENTIAL).

-!- ALTERNATIVE PRODUCTS: 2 ISOFORMS; ISOFORM-1 (SHOWN HERE) AND
ISOFORM 2; MAY BE PRODUCED BY ALTERNATIVE SPLICING.

-!- TISSUE SPECIFICITY: IN THE EMBRYO, HIGH LEVELS OF EXPRESSION ARE
FOUND IN THE ARTERIAL WALLS AT 13.5 DAYS POST COTTUM (DPC). LOW
LEVELS ARE FOUND IN THE INNER EAR AT 13.5 DPC AND IN SOME CELLS IN
THE THYMUS AT 16.5 DPC. EXPRESSED IN THE TRACHEAL EPITHELIUM BELOW
THE VOCAL CORD AND IN THE HAIR FOLLICLES AT 18 DPC.
                                                                                                                                                                                                                                                                                                                                                                                                                           VARSPLIC
VARSPLIC
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                          CONFLICT
                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA-binding; Nuclear protein;
DOMAIN 159 15
DNA_BIND 397 465 F
VARSPLIC 495 519 F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR000910; -.
Pfam; PF00505; HMG_box; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- SIMILARITY: CONTAINS 1 HMG BOX.
                                                                                                                           686 WPWWTKLAEGFSPW 699
                                                                                                                                                                            4 WPWW-----PW 9
                                                                                                                                                                                                                                                                                                                                                   984 AA;
                                                                                                                                                                                                                                                                                                                                                                                                      603
610
35
41
                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                    609
984
35
42
                                                                                                                                                                                                                                               51.2%;
                                                                                                                                                                                                                                                                                                                                                42 AT -> TN (IN REF. 2).
195 Q -> QQ (IN REF. 2).
108897 MW; 7F5506EDADEB98C5 CRC64;
                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                     Score 44; DB 1; Length 984; Pred. No. 51; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                             (IN ISOFORM 2).
SWMYSQT -> ELVVLTD (IN ISOFORM 2).
MISSING (IN ISOFORM 2).
P -> L (IN REF. 2).
AT -> TN (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLN-RICH.
HMG BOX.
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Result
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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Copyright (c) 1993 - 2000 Comp
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Q9dt80 tt virus. o
Q19573 caenorhabdi
Q9dt81 tt virus. o
Q9x8c2 streptomyce
O07504 bacillus me
Q9snn3 oryza sativ
Q9hxc9 pseudomonas
Q9lyg0 arabidopsis
Q9r6j3 agrobacteri
Q9p3g0 neurospora
Q9kzt3 streptomyce
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P96143 thermoactin
Q18753 caenorhabdi
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Q9y7v5 trichoderma
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Q9jh31 tt virus. o
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ALIGNMENTS

## Q9DUC4; 01-MAR-2001 01-MAR-2001 01-MAR-2001 ORF1. TT virus. Okamoto H., Nishizawa T., Tawara A., Peng Y., Takahashi M., Kishimoto J., Tanaka T., Miyakawa Y., Mayumi M.; Kishimoto J., Tanaka T., Miyakawa Y., Mayumi M.; Species-specific TT viruses in humans and nonhuman primates and their phylogenetic relatedness."; phylogenetic relatedness."; Virology 277:368-378 (2000). EMBL; AB041959; BAB19313.1; -. SEQUENCE 723 AA; 85393 MW; 232D003098766344 CRC64; Q9DUC4 STRAIN-MF-TTV9; Okamoto H.; Viruses; ssDNA viruses; unclassified ssDNA viruses. NCBI\_TaxID-68887; SEQUENCE FROM N.A. STRAIN=MF-TTV9; SEQUENCE FROM N.A. Submitted (APR-2000) to PubMed=11080484; 1 (TrEMBLrel. 16, 11) (TrEMBLrel. 16, 16) (TrEMBLrel. 16, 16) PRELIMINARY; the EMBL/GenBank/DDBJ databases. Created) Last sequence update) Last annotation updat PRT; 723 B update)

PRELIMINARY;

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Conservative

100.0%;

Score 57; DB 14; Length 723; pred. No. 4.3; O; Mismatches O; Indels

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TT virus.
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Bridgen A., Duarte M., Tobler K., Laude H., Ackermann M.;
Bridgen A., Duarte M., Tobler K., Laude H., Ackermann M.;
Sequence determination of the nucleocapsid protein gene o
porcine epidemic diarrhoea virus confirms that this virus
porcine related to human coronavirus 229E and porcine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ukita M., Okamoto H., Nishizawa T., Tawara A., Takahashi M., Iizuka H., Miyakawa Y., Mayumi M.; "The entire nucleotide sequences of two distinct TT virus (TTV) isolates (TJN01 and TJN02) remotely related to the original TTV
"Sequence analysis of the porcine epidemic between the nucleocapsid and spike protein ORF.";
                                                                                                   SEQUENCE FROM N.A. STRAIN-BR1/87; MEDLINE-94120721;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Viruses; ssRNA positive-strand viruses, Coronaviridae; Coronavirus. NCBI_TaxID=28295;
                                                                                                                                                                                  coronavirus related to human coronavirus transmissible gastroenteritis virus."; J. Gen. Virol. 74:1795-1804(1993).
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STRAIN-BR1/87;
                                                                                                                                                                                                                                                                                                                                                                                                                 virus.":
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                                                                                  Duarte
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K., Bridgen A.,
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01-MAY-2000
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Q9Y7V5;
01-NOV-1999
01-NOV-1999
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Q9Y4N1;
                                                                                                                                                                                                                                                                                                                                                                                                                          1185
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"Developmental regulation of a gene encoding a multidoma conidiospore surface protein of Trichoderma, cmpl.";
Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ133651; CB408465.1;
SEQUENCE 1245 AA; 135824 MW; 3249C749AFAOCDF8 CRC64;
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               Ansorge W., Wirkner U., N
Submitted (JUN-1999) to t
EMBL; AL096753; CAB46428
Hypothetical protein.
                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                        DKFZP434LLL.
Homo sapiens (Human).
Metazoa; Chordata;
                                                                                                                                                                                                                                    HYPOTHETICAL
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InterPro; IPR002552; -.
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EMBL; Z25483; CAA80971.1; -
                                                                                      TISSUE-TESTIS;
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PF01601; Corona_S2;
ICT 422 422
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62
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Catarrhini;
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Submitted (DEC-1996) to the EMBL; 283214; CABO5671.1; -18SP; P00800; 1HYT.
InterPro; IPR001570; -.
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Q18753;
Q1-NOV-1996
Q1-NOV-1996
Q1-NOV-1998
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Bacteria; Firmicutes; Bacillus/Clostridium group; Thermoactinomyces.
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Wilson R., Ainscough R., Anderson K., Baynes C., Berks M., Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Cou Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L., Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnst Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
                                                                                                                         C50F7
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SEQUENCE
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                                                                              Caenorhabditis elegans.
Eukaryota; Metazoa; Nematoda; Chromadorea;
Rhabditidae; Peloderinae; Caenorhabditis.
NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                       Pfam; PF01447; Peptidase_M4;
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                                                                                                                                    GLYCINE-RICH.
                                                  SEQUENCE FROM N.A. MEDLINE=94150718; PubMed=7906398;
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nes 6; Conserv
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01-MAR-2001
01-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Waterston R.; Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases EMBL; U41557; AAA83303.1; -. SEQUENCE 111 AA; 10139 MW; 6E729A2E0F9762B9 CRC64;
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Johnson D., Stellyes L.;
Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases
Q9DT80;
Q9DT80;
01-MAR-2001
01-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TT virus.
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Virology 277:368-378(2000).
EMBL; AB041957; BAB19308.1;
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Kishimoto J., Tanaka T., Miyakawa Y., Wayumi M.;
"Species-specific TT viruses in humans and nonhu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-PT-TTV6;
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AA; 86132 MW;
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Staden R., Sulston J.,
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TT virus.
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SEQUENCE
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Submitted
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Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Couls,
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hiller L., Jier M., Johnston
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan
Parsons J., Percy C., Rifken L., Roppra A., Saunders D., Shownk
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vauhan K., Waterston R.
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SIMILARITY TO 9 AMINO AC
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Sai T., Sugai Y.;
                                                                                                                                            EMBL; U39855;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Nemat
Rhabditidae; Peloderinae;
                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                       Nature 368:32-38(1994).
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MEDLINE-94150718; PubMed-7906398;
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Caenorhabditis.
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Pred. No. 4.3;
2; Mismatches
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REPEATS IN GALACTOSE SPECIFIC
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Wohldman
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Best Local S
Matches 7
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01-NOV-1999
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Q9DT81;
01-MAR-2001
01-MAR-2001
01-MAR-2001
                                                                                                                                                                                                                                                       Oliver K., Harris D.;
"A set of ordered cosmids and a detailed genetic and physical map the 8 Mb Streptomyces coelicolor A3(2) chromosome.";
Submitted (MAY-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                               Bentley S. Submitted
Kinashi H., Hopwood D.A.;
"A set of ordered cosmids and a detailed genetic and the 8 Mb Streptomyces coedicolor A3(2) chromosome.";
Mol. Microbiol. 21:77-96(1996).
                                                                                                                                                                                                                                                                                                                                                                                                               Streptomyces coelicolor.

Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Streptomycineae; Streptomycetaceae; Streptomyces, NCBI_TaxID=1902;
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Sai T., Sugai Y.;
                                                                            Redenbach M., Kieser H.M.,
                                                                                                                       STRAIN-A3
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Okamoto H., Nishizawa T., Tawara A
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NCE 748 AA;
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9050448; BAB19928.1; -.
748 AA; 88552 MW;
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AL 13.0 KDA PROTEIN.
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN-ATCC 12872;
Tani K., Nasu M., Ishitobi Y.;
Tani K., Nasu M., Ishitobi Y.;
Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases.
Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases.
EMBL; U61380; AAB61393.1; -.
EMBL; U61380; AAB61393.1; -.
EMBL; U61380; AAB61393.1; -.
S40 AA; 59764 MW; 33A66ABFC13491FC CRC64;
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Hypothetical protein.
SEQUENCE 114 AA; 13031 M
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Bacteria; Firmicutes; Bacillus/Clostridium group;
Bacillus/Staphylococcus group; Bacillus.
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
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STRAIN-CV. NIPPONBARE;
Sasaki T., Matsumoto T., Yamamoto K.;
Sasaki T., Matsumoto T., Yamamoto K.;
Soryza sativa nipponbare(GA3) genomic DNA, chromosome 6,
"Oryza sativa nipponbare(GA3) genomic DNA, chromosome 6,
"Clone:P0493C11.",
Slover Clone: DNA, Chromosome 6,
"Oryza sativa nipponbare(GA3) genomic DNA, chrom
                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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Stover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., Warrener P., Stover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., Lagrou M. Hickey M.J., Brinkman F.S.L., Hufnagle W.O., Kowalik D.J., Lagrou M. Garber R.L., Goltry L., Tolentino E., Westbrock-Wadman S., Yuan Y., Brody. L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Lim R.M., Brody. L., Coulter S.N., Folger K.R., Kas A., Larbig K., Lim R.M., Smith K.A., Spencer D.H., Wong G.K.-S., Wu Z., Paulsen I.T., Smith K.A., Saler M.H., Hancock R.E.W., Lory S., Olson M.V.; Reizer J., Saler M.H., Hancock R.E.W., Lory S., Olson M.V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR 2001 (TrEMBLrel. 16, Created 01-MAR 2001 (TrEMBLrel. 16, Last se 01-MAR 2001 (TrEMBLrel. 16, Last an PROBABLE SHORT-CHAIN DEHYDROGENASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                     InterPro; IPR002198; -.
InterPro; IPR002347; -.
InterPro; IPR002347; -.
Pfam; PF00106; adh.short; 1.
PFINTS; PR00081; GDHRDH.
PRINTS; PR00080; SDRFAMILY.
PRINTS; PR00080; SDRFAMILY.
PROSITE; PR00061; ADH_SHORT; UNKNOWN_1.
PROSITE; PR00061; ADH_SHORT; UNKNOWN_1.
SEQUENCE 276 AA; 29427 MW; C47458A8C6CA15A3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Complete genome sequence of Pseudomonas opportunistic pathogen.";
Nature 406:959-964(2000).
EMBL; AE004805; AAG07270.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pseudomonas
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                                                                                                                                                                                                                                                                                                  SEQUENCE
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||WAMAM
   RSPWWPLRRQ
                                     RWPWWPWRRK 12
                                                                                                                               Similarity 7; Conserv
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                                                                                                                                      Conservative
          206
                                                                                                                                                                            54.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gamma subdivision; Pseudomonadaceae;
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                                                                                                                                             Score 47; DB pred. No. 35; nismatches
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                                                                                                                                                           Indels
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